

THE WORKING CLASS FAMILY AS AN ECONOMIC UNIT:

An enquiry into attitudes affecting earning, spending, and the distribution of income between family members.

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## SUMMARY OF THESIS

### Chapter 1

This chapter examines some deficiencies in the present methodology of economics. The deficiencies referred to may be summarised as follows:-

1. The problems arising from the compartmentalisation of economics into disconnected academic fields.
2. Problems arising from the tendency of economists to define the scope of economics too narrowly, possibly thus excluding a number of important cultural variables from their models.
3. This tendency creates a further difficulty; that one can often not be sure to what range of cultures, historical periods, or actors' circumstances, the models are applicable.
4. The over-emphasis which economists have placed on macro-economic statistical relationships in constructing forecasting models. Without a proper investigation and understanding of these relationships at the "micro" level, i.e. that of individual actors, there is some danger of using spurious relationships, and again of the problem referred to under (3) above.

Finally, the argument calls for an integrated model of the household's economic behaviour, taking in all three main aspects of its economic activity (expenditure, work and saving) which have hitherto been dealt with by economics mainly in isolation from each other. Such a model should be based on relationships empirically verified at the level of the individual household. It should incorporate as variables the norms, goals and interaction patterns of the household

and its members, from which their economic actions arise. Since these may be difficult to ascertain on a macro-economic level, some demographic or economic indicators of sociological variables which are salient for the model must also be identified.

## Chapter 2

The second chapter reviews some recent literature relating to the supply of labour by the household to the market.

(This chapter does not attempt to give a complete coverage of the aspects of the field of labour economics which are relevant to the objectives of the thesis; most of the literature on the labour force participation of married women is left over to chapter 6, where it is examined in conjunction with my empirical findings on the family's labour supply). The interdependence of the supply of, and demand for labour, are considered as they relate to the issue of how much work is available to the individual employee. There follows a discussion of the determinants of the individual's supply of labour to the market. This involves a consideration of how the utility which the individual household member derives from his marginal earnings is affected by the distribution of these earnings amongst personal and collective uses. The question is then raised as to whether such variations in the utility of marginal earnings might be used to predict the reactions of workers to wage increases and hence the elasticity of supply of labour to the individual to the individual firm.

## Chapter 3

This chapter sets out the data available from existing sociological studies about the distribution of income within

the family, and the nature of each spouse's responsibilities within the family budgeting system.

#### Chapter 4

This chapter describes the design of a small survey undertaken amongst working-class families in Edinburgh to investigate the nature of the distribution of income and budgeting responsibilities within the family, and their relationship to the husband's and wife's supply of labour. The methods used to analyse the data are also outlined.

#### Chapter 5

This chapter gives the findings of the survey on the distribution of income within the family and the nature of the budgeting system. Factors affecting the size of the husband's personal expenditure are examined. Two main systems of budgeting are identified, together with their cultural correlates.

#### Chapter 6

This chapter gives the findings of the survey on the family's supply of labour. An overall analysis is made of the determinants of the husband's and wife's propensity to work, and the importance of the distribution of income within the family is assessed in relation to other factors. A summary of the rather complex conclusions of this chapter will be found at the end of it.

#### Chapter 7

Chapter 7 concerns some implications of the savings behaviour of families in the sample for contemporary theories of the consumption function. The data suggest a basis for a forecasting model of consumer demand which would treat some types of saving as commodities. A mathematical model is therefore

developed for predicting the cross-elasticities of substitution between current consumption of particular commodities, and that part of saving which is made towards future planned purchases. The implications of this type of substitution effect for the aggregate savings ratio are also considered.

### Chapter 8

This chapter develops the notion of a utility tree - that is, a clustering of commodities according to the degree to which they are substitutes for one another in the consumer's expenditure. A utility tree enables the economist to identify groups of commodities, such that the demand for all commodities in the group is affected to the same extent by a price change of a good external to the group. Such findings greatly simplify the work of calculating the cross-elasticities of substitution. The typical division of expenditures between husband and wife, identified in chapter 5, forms a logical basis for the classification of commodities into groups between which the cross-elasticity of substitution is low. Using this division as a basis for classification, a hypothetical utility tree is constructed, tested on consumer expenditure data from the National Incomes Blue Book, and found to be reasonably correct.

Together with the work on saving in the preceding chapter, the notion of a utility tree suggests a basis for the integrated model of household economic behaviour called for in Chapter 1. It is then shown that leisure could be included in the model as a commodity, given the right sort of macro-economic data.

Chapter 9

In conclusion, the possibilities of such an integrated model are further considered. An attempt is made to assess what data would be required to complete the model; how it incorporates the ideal types of the family budgeting system developed in chapter 5 and the findings about the determinants of the family's labour supply in Chapter 6; and what further work needs to be done to find out how generally valid are the sociological assumptions on which the model is based. Finally, I examine the question of what simple demographic indicators are available of the sociological variables used in the model.

CHAPTER 1INTRODUCTION: SOME COMMENTS ON THE  
METHODOLOGY OF ECONOMICS

This chapter is designed to state the reasons why an investigation of the type presented in this thesis may be useful. By examining some faults in contemporary economic methodology, I shall attempt to show the need for an integrated model of household economic behaviour, which spans three fields of economic theory; the theory of the savings function, theory of demand for individual commodities, and the theory of the individual's supply of labour to the market. I shall also attempt to demonstrate that it is necessary for a good economic model to go beyond the conventional scope of economics, and to take in some variables commonly regarded as the sphere of sociology.

One of the main characteristics of economic models is that they treat economic variables to a large extent as being set in a world of their own. The effect of the simplification which is necessary to develop theory by the methods usual in economics, is to divide off economic variables from sociological or psychological ones, and even to split this economic dimension of behaviour into subsets of variables (academic "fields") which are convenient for formulating models. Variable interaction takes place only within subsets; the models allow for little interaction between subsets. For example, the economic theories concerning household economic behaviour fall into three sets; demand theory, the theory of the household's supply of labour, and theories of the consumption function. In demand theory, we assume that income is fixed; yet in theories of the household's



supply of labour we assume that income is variable, and that the household's desire for money is determined by its members' relative valuation of leisure and material goods, usually treated as an undifferentiated mass. Theories of saving fail to consider the possibility that the household's income may be capable of expansion by extra work. An inter-disciplinary approach may be able to suggest what are the boundaries of economic models; more precisely, what other variables of human behaviour they hold constant or ignore entirely.

An important tacit assumption made by economists is that there is an area of behaviour in which decisions can be assumed to be made according to the principles of conscious maximisation of utility. This area is then identified by economists with those activities which are related to material goals, namely (for the household) earning, spending and saving; but this identification seems to be without empirical basis. Yet it is obvious to everyone, including economists, that a great many decisions in all types of social interaction are made not out of a pure "gain" motive, but out of love, hate, anxiety, fear and habit. Such motives are relevant to the economic activities of spending, earning and saving, as well as to "non-economic" activities. At the same time, calculative maximisation of utility may be a decision process which is applied to some non-economic decisions. Thus, there seems no good reason to identify the area of calculative maximisation with the area of economic activity.<sup>1</sup> In so far as decisions are not made according to the principle of conscious maximisation, they may not be

<sup>1</sup> i.e. the area of actions wholly or partly directed to material goals.

predictable. Yet one of the major purposes of economic theory is to predict behaviour and this may be why economists have been reluctant to question the assumption of conscious maximisation.

Even those decisions which are made according to a calculation of gains and losses for the individual are circumscribed by the constraints and directives of his cultural background. Economists tend to assume that the effect of cultural norms is constant, and thus they assume that the area within which the conscious maximisation assumption is correct is not something which we have to define with reference to empirical evidence. Yet one has every reason to think that the limits of this area are not the same for all cultures, or even for all sorts and classes of people in our own western culture. Nor can one rule out interaction between the "calculation" process and other mental processes of a kind which cannot be represented simply by the concept of cultural "constraints" on utility - maximising behaviour.<sup>2</sup> The individual's very concept of his own utility must be culturally determined. His economic status and circumstances must be included amongst cultural influences on his behaviour, so that instead of thinking of utility as being maximised subject to normative constraints,

<sup>2</sup> Examples of such constraints might be that cut-throat competition is considered unethical; that thrift is a virtue, even where no foreseeable risk requires it, or that "rate-busting" is letting fellow-workers down.



one should think of cultural factors as variables within a utility function which may be interdependent with economic variables.<sup>3</sup> It is, however, plausible that one can define an area of decision making in which conscious maximisation of utility is the only process going on, if one makes this area small enough. The question is whether theories thus confined by their own definitions and assumptions are the most useful kind of theories.

Economic theories are required to predict; and a theory which only predicts correctly in a narrow range of circumstances is less useful than a theory which is valid for a wide range of circumstances. And the greater the number of assumptions of a theory, the smaller the range of circumstances for which it is valid. It is the contention of this thesis that economic models could be improved by a much more extensive incorporation of non-economic variables than has hitherto been envisaged. This would reduce the number of variables which are so often assumed to be constant under the heading of tastes.

The economists' segregation of the economic dimension of human behaviour is neither unconscious nor pragmatic. It is a common argument on the part of economists that this segregation should be made; that economics must deal only with activity directed towards material ends, and with that

<sup>3</sup> The need to examine this sort of interdependence may be illustrated with reference to Duesenberry's theory of saving. He says that the marginal propensity to save depends on the saver's relative income position; the implications of this is that the marginal propensity to save, and the average propensity too, is inversely related to the difference between ego's income and the average income of his reference group. But if this gap becomes too wide, the saver may take up the standards of a different reference group. Consequently, it is necessary to examine how and why a saver may adopt a different reference group.

part of the decision-making process of such activity which consists of conscious maximisation. The question of what variables to take into account, which the economist must ask in his capacity of social theorist, has been somewhat confused with the question of the economist's neutrality or objectivity in his capacity as political adviser. Lionel Robbins (1952) says that economists should be concerned with means, not with ends:-

"Here, then, is the unity of the subject of Economic Science, the forms assumed by human behaviour in disposing of scarce means." (p.15)

He counterposes this definition of economics against an alternative conception of economics as "the study of the causes of material welfare" (page 16). Thus, Robbins considers social action as a problem-solving process, and the economic dimension as an aspect of this process, which he says properly extends to some non-material as well as material goals. Robbins insists, emphatically, that "ends" should be excluded from the scope of economics. This is partly because the economist in his advisory capacity should not make normative statements, but rather should advise upon the best way of achieving a given end. But it is also partly because it is not the concern of the economist to ask why people want whatever they do want. The first consideration is really irrelevant to the business of theory construction, whatever its suitability as a professional ethic. The second consideration seems to arise out of a pre-occupation with the need for academic objectivity. Indeed, it is none of the economist's business to ask what ethical justification a mother of seven children may have for going to bingo five

times a week. But it is surely academically valuable, and by no means un-objective, to ask "why" in another sense. Unless the economist knows why she spends so much money on bingo, unless he has some understanding of individuals' motivation and the life style which underlies it, his models will surely be mechanistic. It will not be possible to say in what social and cultural circumstances they will be true. A demand function for bingo which includes only income and the size of family, is a less valuable model than a demand function which includes some variable or variables standing for life style and values. The growing use of dummy variables to deal with the problem of nominal scales in regression analysis, makes it no longer a reasonable excuse that "life style" cannot be measured. It is merely a question of finding reliable, simple indicators, which is a matter for sociological theory.

To apply the principle that "ends are given" to analytical economics, is to assume that ends are obvious, and not things which have to be found out. This means, in practice, assuming that the actor perceives the economic situation or circumstances confronting him in exactly the same way as does the economist. Keynes realised the importance of the actor's perception of the situation when he emphasised the importance of businessmen's expectations as a determinant of investment behaviour. These expectations may not agree with those of the economists. In other fields, less attention has been paid to the point that the actor's perception is essentially subjective. For example, economists generally agree that utility can only be measured by the individual experiencing it; but the natural corollary of this statement,

that not all individuals will define utility in the same way, has some implications which have commonly been overlooked. In analysing the consumer's choice between commodities, the economist assumes that some consistent ordering of a marginal unit of  $x$  against a marginal unit of  $y$ , is possible. This ordering will depend on cultural factors (generally labelled "tastes"), but in fact including norms as well, and in fact it is possible to envisage value systems which entail that the ordering will be inconsistent or indeterminate. I. F. Pearce (1964) gives the following example: someone is on one occasion presented with the choice of a small and a large apple. He takes the smaller, to avoid being thought greedy. On a second occasion, he chooses a large pear in preference to a small apple (knowing that this choice will be interpreted not as greed but as indicative a preference for pears). On a third occasion, when presented with a large apple and a smaller pear, he takes the large apple. Thus, apparently, a small apple is preferred to a large apple, and a large pear to a small apple; yet a large apple is preferred to a small pear. The consumer's behaviour appears intransitive (inconsistent) yet really it is quite rational; he is choosing the largest fruit, subject to the constraint that he must not be thought greedy. In order to understand the consumer's actions in such a way that he could predict what would happen next time, an economist would have to go behind the actions themselves and examine the consumer's motives. Motives can only be properly understood in a sociological framework; in this case, the economist would need to know something about British norms of table manners in order to understand the

consumer's choice. And if he were British, he probably would do. But a British economist looking at African consumers' behaviour, might find the rationale of their actions more difficult to understand, and would need some sociological data to help him. One must then ask, is our own culture so homogeneous that social norms relating to economic actions can be assumed constant?

The more one sees the economic actor as a member of a household, the more important this point becomes. In the field of industrial sociology, the motivation of the individual worker has been explained in terms of his membership of a work group.<sup>4</sup> But economists have yet to relate the behaviour of consumers and individual workers to patterns of social interaction within the family. The worker's or consumer's perception of the alternatives open to him in economic situations may be influenced by his relationships with other household members. As a relatively trivial example take a man choosing between a red shirt and a blue shirt. He really likes the red one better, but knows that if his wife thinks it garish and persuades him not to wear it often, he will get less utility from it than from the blue one. But he does not really know what she would think. So he chooses on the basis of guesswork. His ordering of the blue shirt and the red shirt is indeterminate. There is no reason to suppose he would necessarily make the same

<sup>4</sup> See, for example, F. J. Roethlisberger and W. J. Dickson, "Management and the Worker", Cambridge, Mass., Harvard University Press, 1939, or T. Lupton: "On the shop floor", Oxford, The Pergamon Press, 1963.



choice again. This situation violates an assumption which appears to be obvious - that the consumer must know what his preferences are. Yet such situations must be common, in so far as purchases of many kinds are often made with reference to the interests of other people besides the purchaser.

These two examples, the first of intransitive choice and the second of indeterminate preference, underline the point that ends cannot be taken as "given" in the building of theories; they are the proper subject of investigation, just as are the actions which result from these ends or goals. Robbins makes but little concession to this point. He says (page 26) that "we ... need to know ... the ultimate valuations of the producers and consumers connected with the productive apparatus", but then (page 83) he attacks with some vehemence the notion that the assumption of economic rationality is not capable of a simple interpretation valid for all cultural situations:-

"The boundaries of Economics are the happy hunting ground of minds averse to the effort of exact thought, and, in these ambiguous regions, in recent years, endless time has been devoted to attacks on the alleged psychological assumptions of Economic Science." (p 15)

There is obviously a practical need to define the boundaries of an academic discipline somewhere, since no one person nor set of scholars can hope to deal with the entire field of the social sciences. Nor can any model encompass all possibly relevant variables: if it did, it would be cumbersome by virtue of its complexity. However, it seems to me that it is necessary to make some effort to define the

boundaries of a discipline or a research project in a way which accords with its ultimate objectives. In practice, this entails that boundaries have to be fluid, and it is distinctly unconstructive to define them so rigidly as Robbins seems to do.

Attempts to define economics have really failed to answer the question: "How far into the nature and causes of the actor's motivation should we go?" To assume that people maximise their economic advantage from a given situation is an over-simplification. The motivation for economic actions (that is, those directed towards material goals) must contain elements of altruism, adherence to custom and manners and so on, as Pearce's example shows. In other words, such actions are not entirely oriented to individual material goals, and therefore they are not entirely governed by the principle of conscious maximisation. Moreover, when we consider a multi-person consumer unit, the question must always be, whose economic advantage is being maximised? It is necessary for economists to realise that economic action cannot necessarily be explained just in terms of other economic actions or other economic circumstances. In order to understand economic actions, it is necessary to see them in the context of the household's overall value system. Real people do not divide off the economic dimension from other spheres of human activity. Their economic actions, working, spending and saving, must be seen as threads in the large cobweb which is social action in general. Consequently, variables outside what has come to be accepted as the economic dimension, may have

to be incorporated into models which are designed to predict behaviour in the economic dimension. It is thus not a condition of academic objectivity that the economist should treat variables outside the economic dimension as constants. By doing so, theory can only fail to attain its maximum potential in credibility and predictive capacity.

For, the greater the number of assumptions attached to a model, the more frequent must be the instances in which users and critics of the model will find themselves doubtful as to whether some assumptions are valid, for some data to which the model is being applied.<sup>5</sup>

For every new variable which can be incorporated into a model, an assumption which holds that variable constant may be abandoned. Let us examine the implications of this in more detail. Suppose we have a demand function for a commodity  $g$ , of the form:

$$C_g = (c_1x_1 + c_2x_2 + \dots + c_nx_n) + (k_1z_1 + k_2z_2 + \dots + k_nz_n)$$

where  $x_1 \dots x_n$  are "economic" variables of the conventional kind, such as income, own price, price of substitutes, etc., and  $z_1 \dots z_n$  are "cultural" or demographic variables in dummy form (e.g. occupation, area of residence, type of dwelling, etc.) consider the occupational variables above. If the beta-coefficients for occupational groups are substantial and

<sup>5</sup> A simple example of how such doubts may arise comes from O'Herlihy, Gwilliam and Ray's forecast of car sales (National Institute Economic Review, May 1967). In the forecast they made in 1961 they needed to make some assumption about the frequency of replacement of existing cars, and in the absence of any evidence that the current rate of replacement would change, they assumed that this would be the rate of replacement for the whole of the forecast period. By 1967 it was evident that the rate of replacement had changed, and that this was responsible for some part of an eight per cent error in their forecast of car sales for 1966. Some consumer survey evidence about the factors affecting how frequently people buy new cars, and how these were likely to change, would have been useful here.



significant, a demand function which includes them will be better than one including only economic variables in predicting the expenditure of groups of consumers whose occupational composition is biased, for example rural areas, mining villages and areas of high unemployment. In using (for such communities) a function which had no occupational coefficients one would, consciously or unconsciously, be making one of two assumptions, either that their occupational composition was the same as that of the sample from which the demand function had been derived, (which would be untrue) or that occupation had no substantial effect on the demand for  $g$  (which would not have been tested).

The first implication of this argument, therefore, is that one cannot know whether the predictive power of a model is capable of significant improvement by substituting extra variables in place of assumptions concerning them, unless one has tried. Is it always worth trying? This will depend on a number of factors:-

- (1) the estimation which may be made from existing knowledge of the increase in predictive power which might result;
- (2) the difficulties involved in collecting and using the necessary data;
- (3) the degree of permanence which may be expected of the relationships specified in the enlarged model;
- (4) the accuracy of prediction required, the law of diminishing marginal utility must, after all, apply to successive increases in predictive accuracy;

- (5) the existing degree of complexity of the model. The more complex a model becomes, the more difficult it is to use, from the point of view of data collection and processing, as well as computation. Most specifically, models to be used in short-term forecasting need to be used quickly. If it takes so long to collect and process the data that the events to be predicted are about to happen by the time researchers have made their prediction, there is clearly not much point in making the prediction. There is, therefore, a trade-off between accuracy and simplicity or speed.

The inclusion of cultural variables is therefore most likely to be of use in long term forecasting, where accuracy has greater importance relative to simplicity and speed than in short-term work. But the inclusion of cultural variables into short-term models may be of value where this does not make data collection too cumbersome. However, another perhaps even more important reason for the investigation of cultural influences on economic behaviour, is that without adequate knowledge of these influences the economist cannot know for what range of circumstances his models are valid. He cannot really know, in fact, what assumptions he is making. For if one does not know that a particular variable or complex of variables is relevant, or even that it exists, one does not specify any assumptions concerning it. An extensive body of literature has pointed

out the difficulties of applying conventional models developed with reference to western societies, to under-developed societies (see Dalton, 1967, and Fifth, 1966). But it is less commonly suggested that social change and cultural differences in our own society may generate a need to continually check the validity of the assumptions of economic analysis. Galbraith's attack on the current relevance of the notion of consumer sovereignty (Galbraith, 1967), and the work of Marris, (1964), Burnham (1942) and others on managerial motivation, Hall and Hitch's work on average cost pricing (1939); all these strands of thought have demonstrated the importance of keeping an open mind about the most basic doctrines of economic theory. These doctrines are now seen to arise not, as was assumed in the early days of the discipline, from common-sense observations of "human nature" and immutable "laws of the market", but from observations of particular societies; and one must be aware that social structure and custom change.

This is not to say that present economic models do not work, nor that non-economic variables have been entirely kept out of the picture. Clearly the power of economists working with theory in its present form, to predict macro-economic trends, is considerable. However, this does not mean that it might not be substantially improved by extending the models back into the area of general social theory, so that the number of sociological variables to be held constant for any particular prediction might be reduced, and the points of application of particular models clearly defined.

Models for some purposes have incorporated variables on the fringe of the economic dimension. In the field of the labour force participation of married women, several studies have introduced as explanatory factors the woman's education, race, social class, and area of residence, and even the attitude of husbands. ( ) In the case of savings behaviour, economists have toyed with the "relative income hypothesis" the notion that an individual's reference group, as sociologists would call it, determines the standard of living he would like to achieve, and hence the proportion of his income that he saves. (See Duesenberry, 1942 and Tobin, 1951). Age has also been introduced as a factor which helps to explain savings behaviour. (See Fisher, 1952).

Moreover, in introducing variables which lie outside the scope of the traditional core of economic theory on individual behaviour, economists have been to some extent constrained by the modern pre-occupation with quantitative analysis as distinct from qualitative analysis. This means that only those variables which can easily be measured, are thought suitable for incorporation into a model. The introduction of "dummy" variables into regression analysis has made it possible for models to include a few nominal-scale variables, provided that the categories are not too many. Cain's use of "region" (Cain, 1966) is a case in point; he treats it as a dichotomous variable "north" or "south". But it has been insufficiently realised that many such variables should not be treated in isolation. To the sociologist the notion of a cultural pattern is elementary. To take a simple example, three dichotomous cultural variables produce eight

possible combinations of variable scores. It may be these combinations, rather than the individual variable scores, which are real explanatory factors.<sup>6</sup> The recognition of these cultural patterns may facilitate interpretation of data and hypothesis construction. Moreover, they may facilitate summarisation of nominal scale variables: it may be possible to handle a cultural pattern as a dummy variable whilst its components would be too numerous.

Of course, if the recognition of cultural patterns is to be of practical value in predictive models, one must find certain indicators of these patterns which can be easily observed and measured. Survey research, too, is obviously time-consuming and costly. Unless it reveals relationships which can be expected to have some degree of permanence, it may not be worth the cost and effort. Moreover, there is a large category of sociological variables which, although some of them may be measurable in an ordinal sense, do not have a measurable connection with economic behaviour. For example, one can say that a favourable attitude to work will increase wives' propensity

<sup>6</sup> For an extensive discussion of the use of variable patterns in social research, see Galtung (1967) especially page 240 et seq. As a very simple example of how such patterns may be relevant in economic analysis, consider the demand for vegetables. A small group of households will buy very few vegetables because they grow their own. Size of garden alone will not identify this group, for not all persons with large gardens grow vegetables in them. Low income will pre-dispose people with large gardens to grow vegetables in them; but the low income group includes a substantial proportion of old or sick people incapable of gardening. Thus, unusually low market demand for vegetables may be associated with a variable pattern consisting of three elements; having a large garden; having a low income; and being physically able to garden. This is a fairly trivial example, but in Chapter 5 I attempt to show how cultural patterns of considerable complexity which have been identified by sociologists, may be associated with particular forms of economic behaviour.



to work, but one would not expect any long-term consistent difference between the labour force participation rates of women who agree with some particular statement about the desirability of mothers going out to work, and the participation rates of women who disagree with it. The amount by which attitudes influence behaviour may be highly variable over time. However, where individual variables or cultural patterns do not have a measurable relationship with economic behaviour, theories which incorporate something of them may at least facilitate the explanation of errors - and hence facilitate prediction of the size and direction of error which a forecast is likely to have. At the very least, a "sociologization" of economic models could define their practical limitations.

This is, in fact, what the "sociologization" of the theory of the firm has done. This is an unusual area of economics, in so far as economists have accepted and developed theories arising from the sociology of organisations, and the traditional theory of the profit-maximising entrepreneur has been very much circumspected by the absorption of such theories into the conventional wisdom regarding managers' motivation. Burnham's theory<sup>7</sup> of the separation, in the joint-stock company, of executive power from capital ownership, has induced the development of a large range of theories of managers' motivation, all of which have different implications for the policies which a company may be expected to pursue.

As stated earlier, economists frequently ignore cultural influences on economic behaviour by bringing them together

<sup>7</sup> See Burnham, 1942.

under the heading of "tastes", an imaginary variable which is held constant. There is an obvious objection to this: that if you do not define a variable you cannot tell whether it remains constant over the range of data being investigated. This kind of self-limitation of an economic model obviously means that the model can only make "short-run" predictions; it is only useful for prediction over that period of time during which one may reasonably expect "tastes" to remain constant. It is important, however, to find out over what period of prediction may be made! Consequently it is necessary to find out what "tastes" are, what the variable comprises and what causes it to change. It is important to overcome this limitation in an age when technological and social change which influences people's values and preferences, is very rapid. To quote Leontief (1971, p. 4)

"On the relatively shallow level where empirically implemented economic analysis now operates, even the more invariant of the structural relationships, in terms of which the system is described, change rapidly. Without a constant inflow of new data, the existing state of factual information becomes obsolete very soon."

Economics is not without its attempts to relate specific changes in values and customs to changes in economic behaviour. Clarence Long (1958) for example, tries to explain the rise in the labour force participation rate of women in the last few decades by reference to the increasing mechanisation of the home. There are several major objections to his theory, which are spelt out in Chapter 6,

but at least this sort of attempt is a step in a potentially useful direction. Without a proper consideration of the cultural processes involved, there is a strong risk in this sort of theory-building, of committing the ecological fallacy<sup>8</sup> with respect to changes over time. Indeed, this is a frequent problem with sophisticated economic models in general, depending as they do so much on multiple regression analysis of time series. What the economist obtains, in such cases, is not a direct observation of human behaviour, but a set of statistical manifestations of this behaviour. Even if he tests coefficients for statistical significance, he may not interpret these manifestations correctly, in the absence of supplementary evidence from direct observation about the behaviour of individuals. The necessity for such supplementary evidence is realised by some, but the subject is often approached with suspicion,<sup>9</sup> except in the surveys of consumer behaviour of individuals conducted by the Brookings Institution (Barlow et al, 1968) and the Michigan Research Centre (in particular "Contribution of Survey Methods

<sup>8</sup> The term "ecological fallacy" was originally used to criticise errors of the type committed when a particular characteristic or behaviour which is found more frequently in place A than in place B, is attributed to general differences between the local cultures of A and B. A similar fallacy is committed if time is substituted for place. For example, if all increase in the incidence of cancer in any period or country is correlated with an increase in the import of bananas, there is no reason to suppose bananas cause cancer. Both might be due, say, to dietary changes which arise from an increase in the standard of living.

<sup>9</sup> For example, Cain (op.cit. page 25):- who says that "the taste factors believed to be washed out by aggregation are doubtless of great importance amongst individuals" but doubts whether surveys really can identify "tastes" and their correlates.



to Economics," Katona et al, 1954) and other studies of individuals' responses to tax rates and changes.<sup>10</sup>

Some of the most important work on the labour force participation rates of married women has in fact run the risk of committing the ecological fallacy in its original form. Cain (1966) uses as data, observations of average income, racial composition, average participation rate of women in the labour force, for cities, and so do Bowen and Finegan (1965). The real test of whether the relationships thus discovered are true, is whether they hold at the level of the individual.

J. K. Gifford (1968) has identified the problems of the ecological fallacy and of spurious correlation in general, under the heading of the "disease of correlationism" and gives this example:-

"Studies of single or partial correlation of the movement of wages, prices and unemployment in a complex situation would not justify a writer in claiming that part of a rise in wage rates was caused by demand pull and part by cost push."  
(p. 1093)

With macro-economic problems, there are considerable difficulties in detecting spurious correlations. But by making investigations at the level of the individual or family, spurious correlations can more easily be avoided. The ecological fallacy itself is but one sort of spurious correlation. It is avoided by making sure, through direct observation of individuals, that characteristic or action x is associated with characteristic or action y at the individual level. Whether characteristic or action x causes

<sup>10</sup> For a summary of these see Brown and Dawson, 1969.

characteristic or action  $y$  is a bit more difficult to discover. To find out this, one must find out why individuals act as they do, or at least understand how  $x$  and  $y$  fit into an overall cultural pattern. For example, both Mincer and Cain think that the increasing wage rates paid to women have had an influence on their participation rates which has outweighed the influence of increasing husband's income. But one could equally well attribute this change over time to other factors, such as the reduction in average family size, or changes in attitudes of women and their husbands towards the idea of a married woman going to work. Given data composed of observations on individuals, one could control for each independent variable in turn, to check whether any of the relationships then disappeared, and evaluate their relative effects. But the interpretation might still not be entirely clear, unless women were asked why they worked. For example, Mincer also finds that, at the level of the individual, participation rates are higher for well-educated women. Is this because such women earn higher wages and salaries, as he thinks, or because their attitudes to their role of motherhood are different, or because their relative evaluation of the interest of paid work versus housework is more favourable to paid work than is the evaluation of less well educated women? Or do professional women have better access to nursery facilities? It is clear that to get to the bottom of the matter one needs to understand the motivations and life style of the individuals involved. This can only be done by survey work which collects data for individuals.

I would agree with Gifford that models based on possibly-spurious correlations may have considerable predictive value. But their ability to predict would be more specific and more reliable, if they had been adequately tested for spuriousity. Moreover, economics is constantly beset by the problem that relationships between variables which appear in cross-section data, may turn out to be different over time. If one knows the underlying rationales of these relationships, instead of merely their statistical manifestations, it may be possible to predict whether future time series will bear out relationships observed in cross-section. Cohort analysis, such as that used by Rossett (1958), may help with this problem. By dividing women into cohorts according to age, and examining the way in which the age-profile of labour force participation has changed, he is able to predict this variable better than a previous attempt which did not use the cohort method.

Another way in which "sociologised" models could help to clarify structural relationships, would be to specify the way in which economic variables are perceived by actors. People's perceptions may be rather different from the truth. C. V. Brown (1968) has pointed out the importance of this for the investigation of the incentive and disincentive effects of taxation - many people are not sure what the marginal rate of income tax is, or have an incorrect idea of it. Several studies on consumer behaviour have attempted to assess how people's expectations of their future income influence their savings and purchasing behaviour. (E.g. Katona and Mueller, 1968).

What about the individual's concept of his present income, or, to be exact, the utility which it represents to him? This may not be a linear function of measured income - not just for Keynesian reasons,<sup>11</sup> but for reasons which have to do with the allocation of income within the family, which I discuss in Chapter 2. The individual's concept of what his income is, and how adequate it is in relation to his desired standard of living (itself a valuable subject of enquiry) must have an effect on his willingness to offer marginal labour to the market. As Duesenberry has pointed out, it may also have an effect on his savings behaviour. The individual's perception of his income and its significance in a complex social situation seems, therefore, to be worthy of study.

I pointed out at the beginning of this chapter that the economic dimension of behaviour has been split up into smaller areas for the purpose of model construction. Thus, the theory of commodity choice is to a large extent divorced from that of the individual's supply of labour; the theory of savings from that of choice between individual commodities.<sup>12</sup> But the classification of variables into their existing boxes seems to need some empirical justification. Connections need to be made between the three fields of theory amongst which statements about the economic behaviour of individuals and households is un-

<sup>11</sup> i.e. that the marginal propensity to consume declines as income rises so that the function could be curvilinear.

<sup>12</sup> This segregation of fields may be justified for the initial development of simple models. But the discipline of economics should by now have reached the stage where multi-field theories can be developed for application to forecasting, which is where they are useful.

happily divided. In the area of commodity choice, and the area of the consumption function, it is generally assumed for convenience that the individual makes choices within an income fixed by factors beyond his control. But the theory of the individual's supply of labour has its *raison d'être* in the fact that individuals may in many circumstances vary their incomes. What are the implications of this proposition for savings and consumption behaviour? For example, Friedman (1957) postulates that occupational groups with a widely fluctuating income, such as entrepreneurial groups, will save more than people with a steady income, because of the need to have a large contingency fund. What, then, of the manual worker whose income fluctuates either because he is a casual labourer, or because a large proportion of his income comes from overtime work? Will he save more than others of the same average income level? Or will he take a second job? Or will his wife work? One can postulate that the use of secondary labour power is the poor family's way of obtaining a contingency fund. Certainly this fits in with Mincer's finding (1962) that the wife is more likely to work where the transitory component of family income is high. The question then arises, for which occupational groups, and under what conditions, is either solution to the problem of insecurity employed?

In the analysis of savings behaviour, consumption, the alternative use of income, has been treated by and large as a continuous mass, not differentiated into particular commodities. Yet in everyday life, one is aware that people

"save up" to buy particular things; savings, then, may have to be related to planned future consumption. Lawrence Klein (see Ketona et al, 1954) went so far as to say that the amount of money which a family spends on durable goods in any one year is inversely related to the amount the family saves, but he did not draw the full conclusion from this, that there is a deliberate connection on the part of the spending unit. In so far as saving may be deliberate, one may ask: what sorts of people save for what, and for what period do they set their money aside? This will influence the level and nature of liquid assets, and the significance which consumers attach to them. It has other implications which are discussed in Chapter 6.

The connections between different areas of spending unit behaviour have been made most thoroughly by G. S. Becker (1965). He has been able to make significant insights into secular trends in working hours, by considering time as a consumption good, which may be complementary to some material goods and a substitute for others.

To sum up, there seems to be a need for studies of the family's economic behaviour which satisfy the following conditions:-

- (1) no artificial barriers between academic disciplines should, if possible, be imposed, since it is important to leave as little as possible under the heading of "ceteris paribus";
- (2) for the same reason, such studies must not restrict themselves to specific aspects of economic behaviour which have been conceptualised



by the arbitrary division of economics into conventional "fields". Work is required which tries to draw the connections between these fields.

- (3) such studies must attempt to identify cultural patterns which influence economic behaviour - in fact economic behaviour must be seen as part of a cultural pattern. If such patterns are found, one must, in order to incorporate them into macro-economic models, find indicators by which these patterns can be easily identified.

It may appear that these conditions could only be met by models of quite impractical complexity - and, as I pointed out earlier, there must be a point beyond which the disadvantages arising from increased complexity outweigh the advantages of any consequent increase in predictive power. The same principle of diminishing marginal utility of model-sophistication may, it could be argued, apply to the process of getting rid of "ceteris paribus" assumptions in order to make the model applicable to a wider range of circumstances. As I pointed out earlier, model-sophistication is really a process of putting in extra variables into the model and removing corresponding assumptions about those variables. But for any model, there will be some assumptions which are valid for most applications of the model, and which will only be problematic for unusual sets of data. There may be little point in complicating the model for all applications, for the sake of greater predictive power in a few. The counter-part to this second

point, however, is that one cannot know for what applications (i.e. sets of data or cultural circumstances) assumptions are valid, until one has tried to find out. The value of checking assumptions is well illustrated by the changes in the field of the theory of the firm to which I referred earlier.

A further counter-argument is that the economist is not always aware of what assumptions he is making. That is to say, empirical investigation of the behaviour to which a model relates, perhaps taking into account variables and concepts from other fields of economic theory or other disciplines, may throw up circumstances for which the model may need modification, or may even suggest new concepts altogether. Becker's work on the allocation of time (1965) is a good example of this sort of process. Becker throws new light on the theory of the individual's supply of labour by considering the worker primarily as a consumer. Whereas most theories of labour supply have treated leisure time as a residual left over from working time, Becker considers it as a consumption good, which is complementary to all other commodities, some consumption activities being more time-intensive than others. This leads to an interesting interpretation of trends in working hours.<sup>13</sup>

Thus, model-sophistication beyond the point which is justified for normal forecasting purposes, may be justified as a method of developing new theories. Moreover - and this

<sup>13</sup> Becker attempts to explain the fact that the negative income effect for male workers is generally stronger over time than in cross-section, by the hypothesis that over time, the productivity of consumption or leisure time (in utility terms) is increasing.



is my major argument - the "break-even" point beyond which further sophistication loses more by way of making a model cumbersome than it gains by way of generality and predictive power, can only be found by experiment. A model of high complexity, once constructed, can be simplified for particular uses, to meet the demands of a particular research problem and the constraints of the resources available to solve it.

In this thesis, I have examined the economic behaviour of working class families in Edinburgh as part of an overall life style. I chose working class families, because it is manual workers who have the greatest opportunities to vary their income through overtime working and piece rates. (Though opportunities for individual variation of effort under the latter heading may be considerably limited by group norms). Since this is only an exploratory study confined by the time and resources available to a research student, it cannot hope to cover more than a fraction of the ground which its objectives imply. Hopefully, it may indicate the need for, and the potential of, a greater flexibility in the scope of enquiry of economics; and in particular, it may illustrate some ways in which the social factors affecting the supply of labour and consumer expenditure might be integrated with the body of economic theory. In summary, the working propositions which I intend to consider are as follows:-

1. That the household can, and does, vary its income according to its consumption requirements or goals.

- (a) by variations in the amount of overtime work taken on by the husband;
- (b) by varying the utilisation of the wife's earning power.

2. That the different ways in which the family's financial resources are divided between members, the responsibilities and the degree of freedom accorded to each member will affect the individual's labour market participation.
3. That the different ways in which the family's income is divided between members, and is composed of different individuals' earnings, affect on the elasticity of substitution between different commodities.

Families' savings behaviour will also be considered, in so far as it relates to:

- (1) the utilisation of the family's earning power;
- (2) the division of income within the family;
- (3) the pattern of expenditure and its origins in a life style.

From this work it should be possible to go some way towards constructing an integrated model of the family's economic behaviour. Such a model would cut across the usual boundaries of labour economics, demand theory and savings theory. It would therefore reduce the number of variables which have to be held constant in the use of any one model. If, moreover, such an integrated model can be related to those aspects of family life which are normally the province of sociology - norms, attitudes, aspirations,

and adherence to wider social groups - the model would have some further advantages over narrower, conventional economic models. It would be able to specify its own limitations, that is, in what cultural circumstances it would or would not be applicable. It might also be able to say, to some extent, how relationships in the model would be likely to change as a result of changes in the underlying culture.

In this chapter, I have suggested two directions of development by which economic theory could improve the predictive power and generality of its models. The first of these directions is the incorporation into models of cultural variables; the process reduces the number of initial assumptions which restrict the range of circumstances, or range of data sets, to which the model can be applied. The process itself entails a thorough investigation of the cultural background of economic behaviour, which serves to check the validity of indispensable assumptions and to establish more clearly the limitations of the model - in other words, it serves to establish the boundaries of the range of data sets to which the model can be applied, and to reveal implicit assumptions of the model which may not be true for all data sets. Much of this thesis is concerned with this direction of development of the economic theory of household behaviour. In Chapter 2, I attempt to analyse the assumptions underlying theories of the individual's supply of labour to the market, and propose a number of hypotheses as to how knowledge of the distribution of income within the family might modify and extend these theories. Chapters 3 and 5 then attempt to construct a typology of the

way in which the distribution of income within the family affects the incentive to work, both from survey data and previous literature. (Chapter 4 is concerned with research methodology). Chapter 6 completes this analysis and assesses the relative importance of the internal income distribution factor in the context of other influences on the incentive to work arising from the economic and social characteristics of particular households.

A second theme of the work, also directed towards a "sociologisation" of economic theory, concerns the structure of the set of consumers' purchases considered as a network of substitutes. This begins with an investigation in Chapters 3 and 5 of the type of purchases for which husband and wife are respectively responsible. The theme is developed in Chapter 8, where the data about this division of expenditure between husband and wife is used to formulate a hypothesis about the structure of a utility tree. Making use of Pearce's work on utility trees and the computation of cross-elasticities of substitution, this hypothesis is tested and found to be nearly correct. The sociological part of the investigation is therefore shown to be of use in computing cross-elasticities by Pearce's methods, and, furthermore, it is shown that knowledge of the social correlates of the division of expenditures between the spouses may help to determine the range of data sets for which a set of cross-elasticities found by this method is likely to be correct.

Chapter 7, concerning the nature of saving by working-class households and its theoretical consequences, shows

how an empirical investigation of economic behaviour in its social context may throw up new concepts which are useful in building new theories. Chapter 7 also illustrates the second direction of development of economic theory which I have advocated in this introductory chapter, the integration of different fields of economics. In Chapter 7, saving is considered as an extension of the set of commodity purchases, and I attempt to show how changes in one important component of saving can be predicted by the use of ordinary commodity-demand functions. Chapter 7 thus attempts to integrate theories of saving with the theory of demand for individual commodities.

The integration-of-fields theme is also prominent in Chapters 2 and 9, where reference is made to the necessity of linking the micro-economic theory of labour supply with the theory of demand by considering how the individual or household may vary income according to needs or desires. In Chapter 6 I show how the nature of the housekeeping system may affect the husband's propensity to work.

Finally, in Chapter 9, I outline the nature and consider the potentialities of an integrated model of household behaviour which would treat consumption, saving and labour supply as one continuous field of behaviour by taking time (as Becker does) as the household's primary resource, and treating all its economic activities as expenditures of time and consumption of utilities produced by time-expenditure.

CHAPTER 2THE FAMILY'S SUPPLY OF LABOUR

The purpose of this chapter is to examine the current state of economic and sociological theory on the individual's, and family's, supply of labour, to employers, and to examine the way in which theories about family members as workers can be related to, and synthesised with, theories about family members as consumers. In conventional theories of consumer demand income is taken as given. This assumption is used in indifference curve analysis; and because this is considered the most basic form of demand analysis it pervades economic thinking about consumer demand and its prediction. Clearly the assumption cannot be challenged in the sense that purchases cannot exceed income for any length of time. But it is necessary to discuss the ways in which the main consumer unit, that is the nuclear family, manipulates the level of its income according to its needs and desires.

This discussion has already been opened by Becker's work (1965), in which time rather than income, is considered to be the consumer-worker's primary resource, and the amount of labour-time available, rather than actual earnings, the primary resource constraint. In order to use this theoretical framework it is necessary first to establish what determines the maximum number of hours a worker can work.

This chapter will also examine the implications of the fact that the consumer worker unit is not one individual, but a group of several individuals - the family. This



raises the issue of how the family allocates the duty of work between different workers: and how the distribution of income within the family affects the propensity to work.

### The nature of the individuals labour supply decisions

How much choice does the individual worker have about how many hours per week he works? Theoretically, the individual has three kinds of decision to make about his or her supply of labour to the market; whether to work at all; for how many hours a week to work; and at what speed to work. In practice the first decision is only relevant to teenagers and students, the elderly, and most importantly to married women; men of working age have not much option. The second decision operates in two ways; the individual can choose whether or not to accept particular "packages" of overtime offered to him by his employer, and he can seek a job which is likely to offer the kind of package he wants. The "marginal" hour depicted in labour supply curve diagrams is strictly speaking an oversimplification, because in only a very few jobs is it likely that the individual can decide to work any number of hours between, say, forty and sixty. Usually the foreman will offer him half a shift here and a Sunday there. This second kind of decision - how many hours per week to work - may be made by men and by married women. For convenience of reference, I shall class men's overtime work and the work of married women together under the term "the family's discretionary labour power" - discretionary, because there is no injunction of law or custom that this labour power must generally be used.

How far, then, can the individual worker choose how many hours he works? He cannot work more than the number of hours his employer can offer him, although he can work less than this, unless overtime is compulsory. The whole question of how much work an individual offers to the labour market may be considered under two headings: firstly the supply of work available to the worker, and secondly his demand for it.<sup>1</sup> This is, I think, a more useful approach than the conventional one of the firm's or the economy's demand for, and workers' supply of, labour. Several writers (Feldstein, 1968, Hunter and Robertson, 1969) have pointed out that these two variables are interdependent in such a way that empirical observations of how many hours people work can only be regarded as evidence of points of equilibrium between supply and demand in the labour market; they cannot be used to build up separate supply and demand curves. The concepts of the supply of and demand for work, on the other hand, do not present this problem. Every employer will offer a "normal" working week (most commonly, at the present time, forty hours for manual workers) plus, very frequently, a variety of overtime packages and sometimes opportunities for extra earnings according to results. This range of work opportunities, then, is the employer's supply of work to the worker, which can easily be ascertained in survey work. Given a certain range of working hours available (which will obviously depend very much on conditions in particular establishments, industries and places) the work-package

<sup>1</sup> This approach was first developed by Lionel Robbins ("Note on the Elasticity of Demand for Income"; *Economica*, June 1930).

chosen by the worker will depend upon the wage rate offered, working conditions, family considerations and possibly some other factors. The set of chosen packages at various wage rates, holding the other influences on the worker's choice constant, can be legitimately regarded as the worker's demand for work<sup>2</sup> - or to return to the conventional terminology, his supply of labour.

Given the wage rate, experience of the range of packages which workers in an establishment are prepared to accept will, at least partly, determine the range of packages which management actually offers. Thus, the demand for labour may be influenced by employees' willingness to work overtime. If this is so, the willingness to work overtime, and the way in which that willingness changes in response to wage increases, could be an important influence on the level of employment. This is both an important social fact, and, as others have pointed out, a problem for the theory of labour economics. But, using the concepts of the supply of and demand for work at the level of the individual, it should be possible to identify social and economic factors which influence the demand for work.

<sup>2</sup> The reader may find it odd to think of work as a commodity; that is really, however, no more odd than it is to think of money as a commodity, as in the commonly used term "the demand for money", or indeed, in the terms used to describe the labour market from the employer's point of view, the supply of and demand for labour. The notions of the demand for money and the demand for work are in fact closely related; for the demand for work is derived from the demand for money. From this follows naturally the idea of working capacity - the maximum number of hours a man can work - as potential income (or "full income", as it has been called by Becker (1965)). If potential, instead of actual income is used as the income-concept, in a theoretical model of consumer demand, and leisure is treated as a commodity, it is possible to incorporate into such a model the idea that consumers can vary their income according to their needs and desires. I attempt to do this at the end of Chapter 8 and in Chapter 9.

The idea of potential income (usually greater than actual income) as the use of maximum working capacity, gives rise to a term which I shall use frequently both here and in Chapter 6, to refer to the extent to which the family or its individual members use their total working capacity or labour power. This term is "labour power utilisation".

#### Determinants of the supply of work

What are the determinants of the supply of work to the worker? In other words, what are the aspects of the employer's demand for labour which determined the range of overtime packages available to the individual employee? To obtain more labour, an employer may recruit new workers or ask (occasionally require) existing workers to work longer hours. There are, then, two elements in the firm's demand for labour; the demand for new workers and the demand for overtime labour. Unless there is an acute labour shortage (in which case, lengthening the working hours of existing staff may be the only way in which an employer can obtain more labour) the demand for overtime labour will depend to a very large extent on its price to the employer relative to the ordinary-rate labour of newly recruited staff.<sup>3</sup> Taking on new staff entails costs of recruiting (advertising, personnel manager's time, training costs) and several kinds of labour overheads (national insurance, selective employment tax where applicable, overalls, tools, training and canteen

<sup>3</sup> The employer, however, may be influenced by other considerations too, such as the effect of employment policies on labour relations and the traditions of the firm or industry. There is no reason to suppose that the employer, any more than his workers, is an "economic man", having entirely pecuniary motives.

facilities). The Prices and Incomes Board (1970) found that such labour overheads represented about eleven per cent of labour costs, assuming a net refund of S.E.T.; and that recruiting costs constituted a further eleven per cent of labour costs. There are, in addition, indirect costs of employing labour (like managers' time) and costs which may be difficult to measure, such as the initial lower productivity of new workers. The Board came to the conclusion that in some circumstances, particularly where S.E.T.<sup>4</sup> is payable, overtime labour is cheaper than recruiting new staff. One such circumstance would probably be where an increase in the firm's demand for labour is expected to be short-lived, so that it is not worth incurring the initial investment in recruiting and training costs.

It is clear then, that when the recruitment of new staff is thought expensive, relatively to paying existing staff overtime rates, the willingness of a firm's workers to do overtime will affect the demand for their own labour. This factor is not relevant only in times of rising demand; even in periods of stagnant demand, there will be a continuous trickle of people leaving the firm for various reasons; and if it is possible and cheaper to share out the work of the leavers amongst remaining staff, this will be done.

If demand for their product is erratic or unpredictable, employers may prefer to rely on it even where overtime is dearer than recruiting new staff. Labour overheads

<sup>4</sup> S.E.T., of course, is payable for each employee, whereas value added tax, payable on the total wages bill, plus profits would not have this "overhead" aspect.



in the form of training costs will be high, and workers' morale will be badly affected, if the firm takes on new workers and makes them redundant again in a short time. The higher the recruitment and training costs, the more likely a firm is to offer overtime instead of recruiting.

The Prices and Incomes Board suggest that high levels of overtime working, particularly where total hours exceed 55 per week, may reduce productivity. This could mean that if overtime goes up a little, it may tend to go up further because the increase in production resulting from it going up will sometimes fall short of managers' expectations; overtime could thus be self-increasing (or self-perpetuating when demand for the product falls off again) by a sort of "ratchet effect". A further factor is that union representatives have a good deal of control over the extent of overtime working in a firm (see N.B.P.I., op.cit., pp.39-40). All these things suggest that workers can to some extent determine the amount of overtime they do, and that moreover an increase in overtime worked may lead to a further increase in overtime offered.

The interdependence of the supply of and demand for work is therefore quite complex; but it can be analysed clearly as a series of feedback loops. I do not think, therefore, that this interdependence renders futile any systematic attempt to analyse the determinants of workers' demand for work.

What factors govern the availability of work for married women? Like the availability of overtime work for men, this will be to some extent independent of the general



level of economic activity, but for different reasons. There is a very high turnover of the female labour force because women stop work to have children, so that in general women wanting work are not likely to have much difficulty, except in some northern towns where industry of the "heavy" type prevails and vacancies in the service industries are not large enough to compensate for this. There is also a hidden demand for cheap female labour to replace men, which may be reported to Employment Exchanges (unlike many vacancies for women which will be in small establishments such as shops and cafés) but which is not likely to be closely related to the level of demand in the economy as a whole. These factors in themselves make it difficult to prove that it is easy for women to find work irrespective of the general level of economic activity, but these same factors suggest that it is so.

Influence of the family economy and personal preferences on the propensity to work

The foregoing argument has suggested that the external constraints on the family's use of its potential labour power, are less important than the internal constraints. Hours of work are constrained on the one hand by the amount of work employers are prepared to offer, but more significantly by family members' health and commitments to child care and household management. These internal constraints may be regarded as distinct factors which affect family members' propensity to work, or, to use the less effective conventional terminology, their "leisure preference". The commitment to child care is a particularly

important commitment of this kind. Where there are young children in the family, someone has to be present in the house all the time they are not at school.

It is almost always the wife who withdraws from the labour market to take on this task. Why? The main reason is custom - the way in which western culture sees the role of mother lays normative constraints on her participation in the labour market. But one may speculate that even if it were culturally acceptable for either parent to take up the role of mother/housewife, this role would still be taken largely by women, as long as, in most jobs, men earn more than women. And indeed, the fact that many women who have young children to care for remain housewives at the same time as many of their husbands regularly work overtime, could possibly be regarded as evidence that the family lets income be earned by the member who can earn it fastest. On the other hand, there are also many working-class women who do work, at least part-time, for an hourly wage rate which is very low compared to what their husbands could obtain in overtime work. And many of these husbands may be doing less overtime work than their employers could offer them. This could be regarded as evidence that the family does not seek to earn its desired income through the sole efforts of the person who can earn most per hour. This point raises a very important question: should economic analysis take, as its utility-maximising consumer-worker unit, the individual or the household? When one examines the social reality of family behaviour, it becomes clear that no simple

answers can be given. The household uses its money and time resources to obtain some utilities which are collectively consumed (e.g. housing, heat, light, furniture, meals) and some which are enjoyed by individuals (e.g. clothing, cosmetics). Individual workers put some of their earnings into a communal housekeeping fund, which purchases collectively consumed commodities, and covers the needs of non-earners, but they keep some of their earnings to meet their own needs as individuals. Thus each wage-earner may be considered to perform so many hours' work for the benefit of the family unit as a whole (which I will designate collective-work), and so many hours to supply his or her individual needs (which I will designate individual-work).<sup>5</sup> The individual's market supply of collective work will be interdependent with other household members' collective work; so that if one member obtains a rise in hourly earnings, all may work less; and if the wife has to stay at home to care for children, the husband may work more than he otherwise would.

A person's market supply of individual-work will be relatively unaffected by the activity and needs of the rest of the family. However, one cannot assume that, as regards this part of his supply of labour, the individual can be considered as completely independent of the family unit. This is because the size of the individual worker's contribution to the housekeeping fund may not be fixed independently of his total wage or hourly earnings; so that, in

<sup>5</sup> On the other hand, the extent to which a person distinguishes collective from individual wants is itself a cultural variable, and one which will be made the subject of empirical investigation in Chapter 5.

other words, the boundary between individual-work and collective work is a shifting one. The number of hours which can be considered as "individual-work" may depend on the total number of hours worked.

Some empirical studies of teenage workers show that girls' work effort varies according to whether their contribution to the housekeeping fund is fixed or dependent on their earnings. Neil Millward (1968) and Sylvia Shimmin (1962) both find that younger teenage girls tend to hand over all their earnings to their mothers, and the mothers then return them pocket-money. Older teenage girls change to a system whereby they pay their mothers a fixed sum for board and lodging and keep the rest of their earnings to spend as they wish. Girls under the second system work harder under payment-by-results schemes than girls under the first system.

The division of the individual's supply of labour into two parts, individual-work and collective-work, and the recognition that the boundary between them may be dependent on work effort, leads to a very important conclusion. This is that for some workers there may be no part of the working day in which, as economists are prone to think, the individual sees his entire post-tax wage as a reward for his labour.

Willingness to work will of course be determined not only by the effective financial reward, but by a number of other considerations (intrinsic utilities and disutilities of work and leisure) which are unrelated to the wage rate. But it must be emphasised that the wage rate is not even a

complete indicator of the economic benefits of work. A better indicator would rather be the sum total of the economic benefits which the worker receives out of the family's economic system as a result of a particular work pattern, compared to the corresponding benefits of some other work pattern. Thus the individual's "wage" for paid work performed appears as a total of the following items:-

- (1) actual pay after tax and national insurance;
- less (2) that proportion put into a family pool for purposes in which the individual is not particularly interested, or of which the disapproves;
- and less (3) that amount which the other spouse will not put into the family pool as a result of the individual's earnings;
- and less (4) that amount given to other family members for their personal spending (money for wife's clothes, children's pocket money).

As an example of how this formula, in an extreme case, works out in relation to a change in earnings, let us suppose that Mr. Jones' pay goes up by two pounds a week. Of this, he puts £1.75 into the family pool, of which his wife will insist on spending 25p on the hire purchase payments for a new gas cooker which he thinks is no better than the old one. Item 3 in this example is zero, but under item 4 the two children want 5p extra pocket money each and the wife buys a new dress which costs five pounds; Mr. Jones gives her the money for this over five weeks.



Neither the pocket money nor the new dress come out of the family kitty money - the "housekeeping", so in the long run he will keep 15p for himself and have another £1.50 spent by his wife on things for the family which he himself wants, but for the first five weeks his personal spending shows a negative change of 90p. Item 3 of the formula also applies to the case where the wife starts to work and her husband gives her less.

This apparently trivial and obscure point becomes of importance when one considers that system of family financial management are not idiosyncratic but almost certainly related to social class and, as we shall show in a later chapter describing in detail the literature on this subject, also to local occupational cultures. This means that family financial arrangements may be able to help explain the differences in labour power utilisation between clearly defined groups of families.

In the light of the foregoing arguments, even the statements of those economists who recognise the family unit, rather than the individual, as the generator of needs which necessitate work, seem rather simplistic.<sup>6</sup> Such statements appear to postulate that all labour supply

<sup>6</sup> See, for example, Fleischer (1970):- "We assume that individual family members make their labour force decisions in consideration of the decisions made by other family members; thus labour supply decisions are the result of simultaneous processes which work towards achieving a maximum of satisfaction for the family, given its limited resources".

and Hunter and Robertson (1969):- "The decision whether or not individual family members will participate in labour market activity will be made in the context of the family and in the light of all its income and consumption plans and requirements".



decisions will be made in such a way as to maximise a joint family utility function. But, as stated earlier, the individual works partly to supply the collective wants of the family to which he belongs, and partly to supply his own individual consumption needs. Moreover, another major issue is raised by these statements; how does the family unit arrive at a definition of its collective needs? and how is the duty of providing for these needs allocated between different members?

There are in fact three possible hypothesis as to how the family makes labour supply decisions:-

- (1) that a target income is agreed on, and that the task of earning it is allocated according to a mutual understanding of members' leisure needs and preferences.
- (2) that a target income is agreed on, and the task of earning it is allocated by a bargaining procedure.
- (3) that there is no jointly held notion of what income level the family wants, so that each spouse has complete freedom to decide how much to work, subject to the constraint that there must be enough money for collectively consumed necessities, such as food and housing.

A number of sociological studies have suggested that family members are extremely individualistic in their labour supply decisions, and would almost support the third hypothesis given above; that individuals may make

their own decisions on how much paid work they do without discussing it with their spouse, and that this is accepted as normal and legitimate behaviour. Michael Young (1952) says that very often the working class wife does not have any say in how much of his wages the husband gives her; so the idea that she would influence his work decisions is out of the question. Dennis, Henriques and Slaughter would support this view (1962); the wife in the mining community has a fixed "wage" and does not usually know what her husband earns; provided he has paid her the usual "wage" he misses a shift when he feels like it. Tunstall, in his study of fishermen and their families (1962), says that fishermen usually keep overtime money entirely for their own spending. so that presumably their wives have no interest in the matter of how much overtime the men do.

Brennan (1959) says (with reference to working class families in Glasgow in the 1950's) that husbands with large families have a lack of incentive to do overtime because all the extra money disappears into the family kitty. By contrast, reference is made in another study (Goldthorpe and Lockwood (1969) to the importance of joint planning of purchases over a considerable time period, in both middle-class and a substantial minority of "affluent" working-class couples. (I shall deal with this evidence at greater length in the next chapter). It is difficult to imagine this sort of joint planning taking place in a situation where the husband's attitude to the family economy is so individualistic as Brennan suggests.

It thus appears that there may be a variety of normative systems governing the appropriation of family members' resources for collective or private purposes, some of which encourage an individualistic approach to decisions about labour power utilisation, and some of which do not. I intend to examine the effects of different housekeeping systems on these decisions; the housekeeping systems discovered in previous literature are described in Chapter 3, those which can be identified in my own survey work in Chapter 5 and their implications for family members' propensity to work in Chapter 6.

The studies referred to here show that not all family income is pooled. What they do not show, however, is whether any incentive or disincentive effects for the wife arise out of some housekeeping systems. If the wife works, does her husband give her less? Or are her earnings considered to be "pin money" for her own personal use? Clearly, in most cases the greater part of family expenditure is under the heading of collective purposes with which the main wage earner concurs. If it were otherwise, marital discord would result. In general, the relative size of collective expenditures which the main wage earner approves of and those of which he does not approve will fluctuate on a short term basis and will be the subject of family discussion and compromise. The amount given to others for their personal spending, and the way in which such amounts are allocated, may vary greatly with the system of income allocation within the

family. The most important indicator of the "net benefits" of extra earnings, as far as one can say without more empirical evidence, may be the amount which the wage earner actually keeps for himself. The notion of the "net benefits" of extra earnings is an important concept, and I shall refer to it as RME (reward of marginal earnings) for short.

The reward for marginal earnings may then, diverge considerably from the actual wage paid for a marginal unit of work, by reason of the distribution of marginal income within the family. One must also consider the possibility of variations in the utility of marginal earnings which may arise from the differences between individuals' relative valuation of leisure and goods. Some such differences may derive from the type of leisure pursuits people pursue: the Prices and Incomes Board (op. cit., 1970) find, for example, that men with an interest in sport work less overtime than men with no interest in sport. Other differences in the relative valuation of leisure and goods may come from the goods side; some people have a stronger desire to increase their standard of living than others, and some have heavier expenses than others: the Prices and Incomes Board find, for example, that men with hire purchase commitments tend to work more overtime than men who have none.

All these types of variations in the marginal utility of earnings may affect not only the individual's "average" propensity to work, that is, the amount of work he does at any particular time, but also, they may affect the in-

dividual's reaction to changes in earnings opportunities. They are highly relevant to the question, what is likely to be the shape of the short-run supply curve of labour to the individual firm?

The elasticity of supply of labour to the firm  
and the question of the negative income effect

Economists have engaged in extensive debate as to whether changes in real income give rise to an incentive effect or to what is known as a negative income effect. The former means that if the hourly real wage rises, people are willing to work longer hours.<sup>7</sup> (This rise in real wages per hour may come about through an increase in money wages or a reduction in prices - or even through an increased range of goods being available for sale after a period of shortage or rationing). The alternative to a substitution or incentive effect is a "negative income effect". When pay per hour goes up, a negative income effect takes place when people take advantage of the rise by working less hours.

Opinions as to the frequency of the negative income effect derive from three sources; a priori reasoning, coupled with some expirical evidence of a rather non-systematic kind; evidence concerning responses to tax rate

<sup>7</sup> Applied to the question of the effects of piece rates and incentive schemes, an incentive effect, often termed a substitution effect (see Hunter and Robertson (1969) pp. 213 to 214) means that people will work harder because the incentive payment scheme or piece rate scheme enables them to gain extra income for every unit of work done. This definition is not quite the same as an incentive effect resulting from a pay rise, because whereas an incentive effect resulting from a pay rise means obviously that people are reacting to getting more money for the same amount of work, in the case of a change from time rates of payment to some form of piece rates, the rate of pay for the same number of pieces may be higher, lower or the same for a particular worker as it was on the time rate system.

changes; and evidence about statistical relationships between wage rates and working hours. Amongst those who have argued from a priori principles, Knight (1921) and Pigou (1932) claimed that one would expect a negative income effect as a consequence of the law of diminishing marginal utility, as applied to income. Robbins, (1930) using the notion of the elasticity of demand for income, showed that this was not necessarily the case. Going to the other extreme from Knight and Pigou, some writers have referred to the negative income effect (or lack of positive reaction to incentives, as it may be interpreted) as a perversity peculiar to under-developed countries where the "native" has little material ambition. In fact, traces of this attitude may still be found in development economics.<sup>8</sup>

Statistical evidence concerning the relationship between wage rates and hours shows that negative income effects commonly exist amongst workers in industrialised countries. (Hunter, 1970). There is generally a tendency for working hours to fall as wage rates increase over time - although this tendency has been virtually absent in Britain during the post-war period.

Studies on workers' responses to income tax changes have sometimes found a negative income effect and sometimes a positive substitution effect.

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<sup>8</sup> See, for example, Jacob Viner (1964) referring to the negative income effect, Viner says:-  
 "There is no reason why such behaviour should be peculiar to agricultural labour, but it may be that it is more likely to be prevalent for habit-ridden rural populations". (p.82)  
 He also points out that the eighteenth century economists believed the negative income effect to be general.



(This research is summarised in Brown and Dawson's *Personal Taxation Incentives and Tax Reform* (1969)). What is perhaps the most important study of manual workers (Rolfe and Furness, 1957) found that some workers reacted positively to a tax reduction (i.e. worked harder) and others reacted negatively (worked less hard). Is there, then, some specific sub-cultural difference between those individuals who react positively and those who react negatively to a real wage increase, and can one identify such a difference empirically? This question will be considered in Chapter 6.

There is, of course, one sense in which the supply of labour generally reacts positively to wage increases. The higher the wage rate which the firm offers, the greater the number of workers who will apply for its jobs. To this extent, there will be a tendency for the short-run supply curve of labour to slope upwards. But the firm may be faced with a situation where the higher the wage rate paid to existing workers, the smaller the number of hours they will be willing to work. Whether a wage increase results in a greater or smaller total number of man-hours being offered to a company will depend on the balance of these two effects; the attraction of new recruits and the tendency of existing workers to reduce their take-up of overtime opportunities. It is theoretically possible for the combined effect of these two tendencies to reduce the overall supply of labour, as an example will now show.

A firm, by raising the wage rate, would gain the use of (say) an extra 4,500 hours per week by attracting 100 extra workers. But if this means that the number of hours which

the 500 men already employed, are willing to work, falls from 27,500 to 22,500 (i.e. each man works 45 hours instead of 55) then the firm will altogether be offered 500 less man-hours per week than before the wage increase - the supply curve of labour even including the labour of new employees will be backward-sloping. One can see that this sort of situation might quite well happen in periods of labour shortage, when new recruits are difficult to find, and existing employees, already working a very large amount of overtime, are unlikely to offer more.

It is, then, of some importance to know what determines the elasticity of supply of labour from individual workers. Let us now consider this problem in the light of the foregoing arguments about the nature of the reward of marginal earnings. According to the formula for the RME which was postulated earlier, it would be theoretically possible, though admittedly unusual, for RME to be zero. If this were the case, no wage increase could provide the worker with an incentive to increase his working hours - even though his family's standard of living were low, and even though other workers at the same income level reacted positively to the same wage increase. Millward's teenage girls who handed over all their marginal earnings to their mothers are examples of workers whose RME was, according to the formula, perhaps as low as zero. The way in which marginal earnings are utilised in the family economy may thus influence workers' reactions to wage increases. An investigation of the determinants of the RME may therefore help to explain why some workers increase and some reduce their working hours after a wage increase; and

it may be able to show that groups of workers defined by certain cultural characteristics are particularly likely to exhibit a negative income effect. This theme will occupy a major part of chapters 5 and 6.

### Summary and Conclusions

In the first section of this chapter, I have shown that the amount of overtime which groups of workers are willing to work may have an important effect on the amount of work offered to them by their employers. Hence, the demand for labour is not determined independently of workers' preferences. But for this reason, and in order to predict when the elasticity of supply of labour to an enterprise will be negative (a possibility demonstrated in the third section) it is important to find determinants of the elasticity of the individual's supply of labour and determinants of his propensity to work.

In the second section, I have suggested that the distribution of income within the family may give rise to substantial variations between households and between wage-earners of different family status, as to the effective financial incentive a worker receives from marginal earnings. I have also suggested that a change in the wage rate of one family member may have substitution effects and income effects on the work offer of another member; in other words, that there is some part of the family's supply of labour to the market which may be considered as a joint effort to supply collective needs. Both of these hypotheses will be examined in the empirical work of Chapters 5 and 6.

CHAPTER 3THE DISTRIBUTION OF INCOME WITHIN THE FAMILY:  
A REVIEW OF PREVIOUS LITERATURE

This chapter will be mainly descriptive; its purpose is to summarise the evidence on the internal financial arrangements of working class families, to develop an analytical framework for understanding and assessing this evidence, and to see what issues and guidelines it suggests for further investigation.

Some of the literature to be considered here has already been mentioned in Chapter 2; the possibility that the division of income within the family has incentive and disincentive effects on husbands' propensity to work is again raised here as one of the most important issues to be considered.

The housekeeping system has two sets of implications for the economist. The first, as I pointed out in the last chapter, is the possibility that the system of allocating income within the family may have an effect on work incentives. The second set of implications concerns the way in which the distribution of consumers' expenditure between different commodities may change as a result of price and income changes. The system of distribution of income within the family affects the distribution of marginal earnings between different commodities. In other words, it may affect the income elasticity of demand for commodities. Moreover, the division of commodities into two sets, some purchased by the wife, some by the husband, has implications for the cross-elasticities of demand with respect to price changes. A change in the price of, say, women's clothing, may have an

effect not merely on the demand for that set of commodities but possibly also on a number of others; the housewife may spend less money on some other goods in order to maintain her expenditure on clothing. Clearly, the other expenditures affected are much more likely to be expenditures encompassed by the housekeeping allowance than expenditures made by the husband. The nature of the two main commodity sets, and how rigid are their boundaries, are therefore matters of some interest for the forecasting of consumers' demands. This issue is dealt with at length in Chapter 8.

A third point of interest about the housekeeping system is one quite unrelated to economic theory. This is the question of how the system of allocation of money affects the standard of living of the family unit, and, more particularly, of the individuals in it who are not wage earners. Young (1952), the writer who has made the most systematic study of housekeeping systems, considers this an important issue with regard to the definition of poverty. He points out that a family may have an "adequate" income according to some definition of its physical or social needs, but if a larger proportion of this income is allocated to the husband's personal spending than the person drawing up the "needs" scale anticipated, this income may in practice be inadequate to sustain the wife and children at the defined standard. This is an issue of some importance for social workers and others, and it seems to be a waste to make a thorough empirical investigation of the housekeeping system without considering it. I have, therefore, paid some attention both here and in Chapter 5 to the question of how large is the husband's personal expenditure, in relation to

the total family income, and what determines this proportion. Since this last issue is central for several of the writers who have described the distribution of income within the family, I shall deal with their evidence about this point first, since it is clearest to describe most of the data on housekeeping system in the context of the arguments in which it is presented. I shall then return to the construction of a model of the housekeeping system which will facilitate the investigation of its economic implications.

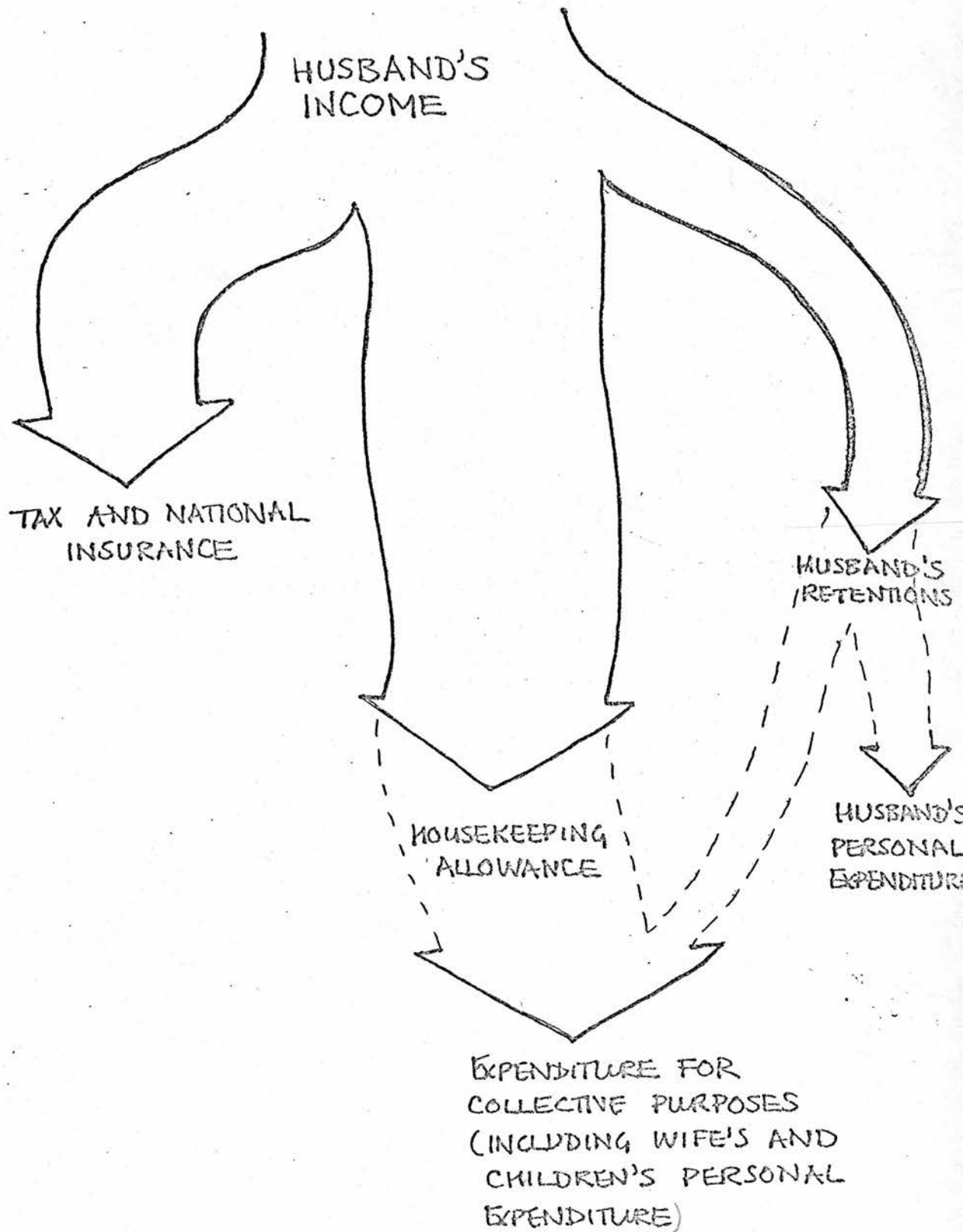
1. A Flow-diagram Model of the Family Economy

I begin by defining some terms which will be used both in this chapter and in later chapters where reference is made to this topic. In most of this chapter, I shall be working with a simple model in which the husband earns all of the household income, apart from family allowances.<sup>1</sup>

The first stage of construction of the model is to consider the way in which the family income is divided up for different purposes. The incoming husband's earnings may be treated as a flow, analogous perhaps to the flow concepts used in national income accounting. The flow is immediately divided into two streams; the housekeeping allowance given to the wife, and the residual, which I shall call "husband's retentions". (See Diagram 1). On the whole it appears that

<sup>1</sup> On the whole, this study is not concerned with the financial contributions of working children as a subject of investigation, either in this chapter or elsewhere. That aspect of family financial organisation is the one perhaps most thoroughly covered by previous writers (see Millward, 1968 and Shimmin, 1962).



DIAGRAM 1

the first stream represents money reserved for commodities required for collective family consumption (food, housing and fuel) together with commodities consumed by the wife and children as individuals (clothing, cosmetics, sweets, toys, cigarettes etc.); and that the husband's retentions represent money reserved for the husband's personal expenditure. Husband's retentions may however, be partly used for collectively consumed commodities and services, particularly things which are purchased at irregular intervals, such as furniture, crockery and linen, household repairs or holidays. The sum of the housekeeping allowance and the amount which the husband spends on items for collective consumption or items for individuals other than himself, will be referred to as "expenditure for collective purposes". This of course is not entirely expenditure for collectively consumed commodities or services (such as food, fuel and housing); it includes both these commodities and the individual consumption of wife and children. The reason for this anomaly in the definition is that it is difficult to distinguish, either in the literature or in any new investigation, amounts regularly used for the individual consumption needs of these persons. In the working class family the wife's "personal" allowance and her "housekeeping" allowance are not separate. One fund is given to cover both kinds of need with the exception that the husband may give the wife extra money for her clothing just as he may do for other "irregular" purchases. The needs of the children, both for pocket money and entertainment, and for clothes, may be met out of this same housekeeping fund or they may be supplied by the husband additionally to the housekeeping allowance.

This division of the family income into various streams of money has two aspects. Firstly, the different streams are directed to different sets of commodities. This is quite clear from the many sociological studies which have collected evidence on the housekeeping system. Secondly, the different streams are under the control of different people - there is a division into husband's expenditure and wife's expenditure. It is less clear from the literature to what extent the expenditure of a sum of money is synonymous in the domestic financial system with control over the purpose for which that money is spent. This is an issue which needs to be considered carefully.

The relationship between the allocation of expenditure and control over expenditure

One of the most important works on the distribution of income within the family (Young, 1952) assumes that the husband's area of expenditure and the wife's area (the "housekeeping allowance") do represent separate spheres of control. The wife has no say over what her husband does with his pocket money. But the wife, on the other hand, is assumed to have complete control over what she may do with her housekeeping allowance; if this were not so, the standard of living of the wife and children could not be measured by its size. Whilst Young himself does not present any direct evidence for this assumption, it may be a valid interpretation of the general picture of traditional working class cultures presented both by Young and by other writers to whom I have referred. In "Ashton", for example, the housekeeping allowance is regarded as the wife's "wage"; surely the implication of this is that it is entirely under her control, while the hus-

band's pocket money is not. Mays (1954) and Hoggart (1971) emphasise the wife's complete control over the management of household expenditures, as a central aspect of her role in a traditional working class culture. Townsend refers to "the personal responsibility" for each share of income and the uncertainty or ignorance of the other's exact income and spending habits" and "the underlying competition between man and wife when the wage is small" (Townsend, 1957, p.91 of Penguin edition).

Bott's picture of the Newbolts (which I shall consider in more detail later) confirms all of these features of a traditional working-class family role structure. In her picture of middle class families, however, she says: "Financial affairs were managed jointly, and joint consultation was taken for granted in all major decisions" - although she does not say anything about the mechanical details of the allocation system of such families. Assuming that there must be some degree of division of purchasing responsibilities between husband and wife in the middle class, Bott's statement may mean that in this class the allocation of responsibility for a certain set of purchases to one or other spouse, does not necessarily imply an allocation of executive control over such purchases. What, then, of the "affluent" or "non-traditional" working-class? Are control and responsibility contiguous there? Goldthorpe and Lockwood (1969) see the activity of husband-wife discussion of financial matters as essentially a planning activity - a theme which I shall take up in Chapter 5. They say (pp.124-125) that whereas nearly half the white-collar workers in their study made joint plans about saving and expenditure covering a number of

purchases, and with a time-span of more than three or four months, only a small minority of the working-class couples did this. More than half the manual couples, on the other hand, made no plans other than to provide for payment of bills or holidays. (The questions asked referred entirely to "joint" plans made by husband and wife together). This evidence suggests that the housekeeping practices of "affluent" workers lie somewhere between the traditional pattern, where "his money" and "her money" do signify areas of control as well as executive responsibility for specific sets of purchases, and a middle-class pattern where joint decisions are the rule at least for major purchases. Goldthorpe and Lockwood (op.cit., 1969) say (p.125):-

"... in general, our white-collar couples appeared to manage their financial affairs on a "joint" basis to an appreciably greater extent than did our manual couples....At the same time, though, it is evident that only a minority of our affluent workers and their wives managed their family finances on the extremely segregated basis that has been regularly described in studies of traditional working-class life".

On the basis of the foregoing evidence, I have made the assumption that, at least in those working-class cultural patterns which can be identified as "traditional", the division of income within the family does represent a division into areas of control; and that furthermore, there is a high degree of correlation between areas of control and areas of responsibility even in other working-class cultures. But one must bear in mind the possibility of a progressive

separation of control from responsibility, and/or a progressive blurring of areas of responsibility, towards that end of the "traditional"/"affluent" continuum where a middle-class life style is most nearly approached by the family in its role as a consumer unit.

I think it moreover reasonable to assume that even in "affluent" cultures the wife is, at least for everyday expenditures, like food, the manager as well as the spender. It would be ludicrous to assume that she consulted her husband at every turn as to whether to buy cabbage or sprouts for dinner. There is a further category of expenses, like housing expenses, insurance, fuel bills, and the TV licence, which families accept as essential and inevitable, and about which there is rarely any need for consultation between husband and wife - except in the unusual event that such expenses cannot be met, or when they are thinking of moving house or changing the type of heating they use. The question as to whether spending and deciding go together, relates to what might be caused discretionary expenditures. Under this heading I would include most durable goods, clothing, holidays, and perhaps toys for children and other small things which are bought as present or as luxuries.<sup>2</sup> These are all categories of expenditure concerning which the question: "how much should be spent on this?" or even "should it be bought?" are important for a family. (These are the budgeting questions, to which I address myself in this study; there is another as-

<sup>2</sup> Most of the things included, in fact, under the heading of "other goods" in the Family Expenditure Survey, except for medicines, toilet requisites, and matches, soap, etc.



pect of consumer choice which I do not think has a place in a study of the housekeeping system, that is, what colour or style of product to buy). It seems to me that the person in whose set of purchasing responsibilities a commodity falls, must have a large degree of independence in answering these budgeting questions. If the wife is given her housekeeping allowance to provide food and children's clothes, then within limits set by the social norms to which the couple subscribe, she will decide how the money shall be divided between these two things. Similarly, if the husband gives his wife extra money to buy the children's clothes, then it is in his hands to decide how much she can have. I think, therefore, that I am justified in identifying spending with control over most second-level budgeting decisions. This is an important assumption from an economic point of view, because it confirms the notion that substitution between "husband's goods" and "wife's goods" is less likely to occur than substitution between commodities within a set.

The evidence on housekeeping systems from previous literature

Previous sociological literature, mainly in the field of community studies, provides a mass of scattered and piecemeal evidence on housekeeping systems. Few writers have investigated this topic at all systematically apart from Micheal Young (1952) and Griselda Rowntree (1954). Their objectives in dealing with the subject are rather different from the objectives of this thesis; they examine the distribution of income within the family to see how it affects the standard of living of individual members. This

question is of course of considerable interest to social workers and others concerned with the study of poverty, and I have therefore devoted a section of Chapter 5 to it although it is not relevant to the main concern of this work.

Most of the community studies have also dealt with the subject of housekeeping systems from this point of view, so that it is convenient initially to follow their perspective.

Young (1952) asks himself: how much of the family's income is devoted to supplying these needs which we think of in defining a subsistence standard or poverty line? Is income unequally distributed between family members in such a way that some members are in poverty whereas others are not? He cites several pre-war studies which show that when food is scarce, the husband gets priority over the children, and possibly the children over the wife. He provides evidence to show that the working class man keeps a substantial proportion of his earnings to himself, and that families who are above some subsistence standard if their total income is taken into account, are below it if only the housekeeping allowance is taken into account. Young assumes on the basis of previous studies (Soutar, 1942, Rowntree, 1941) that the husband's retentions are spent mainly on tobacco and beer. But neither he, nor the writers he refers to, consider if the assumption is correct. Husbands may pay for some important family items out of money they keep; post war studies show that the husband may be asked for money additional to the normal housekeeping allowance for clothes, furniture and replacements of household equipment. Land says some husbands pay fuel bills; Dennis et al (1962) that they pay for clothes and furniture;

Hoggart that they give the wife extra for replacements of household articles; things like crockery. Bott says that the working class husband gives the wife a pound or two extra if she says she needs it, regardless of the purpose for which it is required. Shaw gives some detail on this point:-

"There seemed to be little attempt to adjust the allowance as family expenses increased, though in some cases certain outgoings were taken over by the husband, as the children grew older, for example, major items of clothing for schoolchildren... Custom allotted to the wife the payment of the rent, and to the husband the payments for holidays (when they were taken) and for certain items of clothing for the wife as well as for himself; household repairs and renewals were either paid for out of joint savings or by the husband; they did not as a rule come out of housekeeping money, except for the small amount put aside as savings ..."

Griselda Rowntree (1954) gives some figures for the average housekeeping allowance and average income of working-class families in Aberdeen, of different occupational groups and family sizes. She also gives their average expenditure, during a fortnight's accounting period, on the main groups of consumer goods and services. There is a gap of several shillings between the amounts spent on drink, tobacco and entertainment, and the amount of pocket-money husbands are alleged to have kept. She mentions that some husbands take on the responsibility of saving, and consequently of paying for some irregular purchases; this would account for a good deal of the discrepancy. Some would also

be accounted for by the men's expenditure on clothing and fares to work (car ownership would presumably have been uncommon at this period). It seems likely, however, that unless wives drastically under-state the amount their husbands spend on drink and tobacco, the author under-estimated the extent to which husbands use some of the money they keep for household purchases made at irregular intervals. Such understatement about expenditure on smoking and drinking is a well-known feature of budget enquiries, but it seems unlikely to be large in her study, since a high proportion of wives saw the whole wage packet and gave their husbands pocket-money back.

Young takes several authors' evidence that housekeeping allowances do not change much in the course of a marriage, as showing that they are related neither to needs nor earnings. Griselda Rowntree does this too, despite these inconsistencies in her data which lead one to be suspicious of this conclusion. The importance of Shaw's findings is that they really attest the irrelevance of the face value housekeeping allowance. Zweig, too, shows that the husband is frequently responsible for saving - and often, too, for specific irregular payments like bills and furniture, to which short-term saving is likely to be directed.

What Young really should be attacking is not the conventional way of measuring the family income, for in attacking this he comes near to implying that for a working class husband to spend anything on beer and cigarettes is immoral; but those concepts of a "subsistence standard" which make no allowance for this kind of item. In any case, although smoking and drinking have come to be regarded as the

prime sort of extravagance amongst poor families; one could just as easily count it as extravagant to give children pocket money for sweets, comics and the cinema; or for the wife to buy lipstick or magazines. And of course, since the mid-fifties the prime sort of alleged "extravagance" has changed. The marginal commodities, except amongst the very poor, have now become durable goods, especially cars.

Household goods are a source of pride and enjoyment as much, if not more, to the wife than the husband; and the car, even if its main purpose is to take the husband to work, at least facilitates leisure pursuits involving the whole family.

Thus it is no longer so easy to identify the housekeeping allowance with expenditure on "essentials" and the husband's personal expenditure with "luxury" purchases, even if this ever was valid. The question of what proportion of income is devoted to collective purposes is still an important one; but not because expenditure on beer and tobacco, or any other commodity demanded by only one person in the family group, necessarily fails to contribute to the standard of living of the whole unit. Rather this issue is important because it affects the incentive to work derived from a person's earnings. One of the writers Young refers to illustrate this point well when she (Soutar, 1942) quotes a working class woman as saying "you can't expect them to work for nothing". This implies, says Young, that working class women do not resent a division of income which gives the husband a larger amount for purely personal use than they themselves have. Young does not seem to realise the importance of this, when he says that in the post war inflation families may have



a greater tendency to adjust the housekeeping allowance to rising prices. Rising prices affect the husband too.

Young (op.cit., 1952) quotes one study of housekeeping systems (Madge, 1943) which shows a substantial proportion of husbands, nearly half in one northern town, giving their wives all their money.<sup>3</sup> Yet he does not consider what arrangement is made for the husband's personal spending under such a system; whether it is really different from an allowance system in which the husband gives the wife an allowance which is only part of the wage. Several writers (Zweig, (1964), Land, (1969), Kepr, (1958), Humphreys, (1966), Rowntree, (1954) and Townsend, (1957)) agree that in this sort of system husbands receive an agreed amount of pocket money back from their wives. There is, a priori, no reason to say that the amount devoted to collective expenditure in the whole wage packet system is different from that in the allowance system. The "handing over" may simply be a ritual to reassure the wife that nothing is being concealed from her. This needs to be investigated.

Many writers (Young, Bott, Dennis, Shaw, Mays, Townsend) say that unless a whole wage system is used, the wife does not know her husband's earnings. This is frequently cited as evidence that the husband maintains control by keeping his earnings a secret (cf. Mays, 1954). Yet Willmott and Young (1969), whilst agreeing with this view quote examples of joint financial decisions; both husband and wife may jointly agree upon buying a television set. Since such joint decisions exist, the husband's exclusive control may not cover all major purchases even though the primary structure

<sup>3</sup> This sytem, which is referred to by several writers, may be given the name "whole wage system" for convenience of reference.



of expenditure is determined by his decision what to give the wife for housekeeping. Townsend's informants attest that the wife does not resent the "secret"; is it really a case of deliberate concealment, or a ritual to avoid financial quarrels? Whilst one of Townsend's informants "was most anxious that this information should be treated as private" and "told me when his wife was not in the room", a woman says "Some men are greedy ... and some are jealous. A woman should know near enough, but some women get themselves into debt". Townsend says that housekeeping arrangements are subtly competitive; there is "his money" and "her money". In this sort of situation, is it not likely that customs will grow up to circumvent this competitive element, so that in some families the husband shows what he has got, and receives pocket money back, although it would make no difference to the final expenditure pattern if he kept it in the first place, and in other families the wife refrains from trying to find out how much the man earns?

Young is not at all specific about the size of the housekeeping allowance or what its customary relationship is to the husband's earnings. Land points out that it may be based on the husband's basic wage, or on total earnings. There were various opinions as to whether men give their wives any of their overtime earnings; Tunstall (1962), says that fishermen do not give them any; Brennan (1959) says that they do and that at least in large families, the need to put most overtime money into the family kitty can act as a disincentive to work overtime. Mays (1954), writing of Manchester dockers, says that not giving the wife overtime money is associated with a system of family roles in which the husband is a "lodger"

and takes little part in family decision making:-

"While the mother is the comforter, caterer, planner, the role of the father in most homes is that of wage-earner and disciplinarian. He is the economic master who decides how much of his income will go to housekppping and how much he will keep for his own personal use. It is rare for the husband to take a hand in planning the weekly budget; few tell their wives what they earn. He may keep back as much as half his income for himself. Overtime and bonus are thought of as an addition to his personal spending money rather than as an addition to the common pool".

(quoted in Josephine Klein, (1965) page 45)

Dennis, Henriques and Slaughter say that the house-keeping allowance is based on the minimum amount a man is ever likely to earn, allowing for the possibility that sometimes he is too tired to work a shift and earns less than the basic wage.<sup>4</sup> A similar system may be implied in Kerr's statemen that in a Liverpool sample (which may contain mainly docker husbands) some men give as little as half their earnings to their wives; possibly because dockers' employment is essentially casual, and much more so at her time of writing than it is today. Woodward too, (1954) says of Liverpool dockers that they do not often give their wives a regular amount, because their earnings fluctuate so much. But in Kerr's "Ship Street" (Kerr, 1958) there is no question of such an allowance being the result of male dominance, as is assumed to be the case in Ashton. Wives want to know their husband's earnings and argue if they think they are not getting enough. (But this comment does not apply to the whole of Kerr's sample;

<sup>4</sup> op.cit., pages 187, 197 (new edition, 1969)

"good dads" hand over all their wages, although this system is becoming less common amongst younger couples).

Zweig (1964) has an extensive typology of housekeeping systems, not a good one because the types are not mutually exclusive, but worth quoting for variety of arrangements which informants say they use. The systems are; a fixed allowance, with possibly extra if necessary (as with Bott's "Newbolts"); an allowance variable with shift earnings; a fixed allowance with the husband paying "bills" out of retentions; the whole wage system; giving the whole wage less a fixed amount of pocket money; a percentage of earnings; and two different variants on the whole wage system ("kitty" and "pooling") the meaning of which is unclear. Griselda Rowntree (1954) confirms that in a sample of Aberdeen young couples husband's retentions may consist of a fixed "pocket money" allowance. She adds that many couples change to this system from a whole wage packet system on the birth of the first child - possibly because the husband felt his personal expenditure threatened by the expense of the baby? Hilary Land (1969) also shows several different ways of determining the housekeeping allowance; sometimes it is based on total earnings and sometimes on the basic wage only. She says that the lower the household income, the more likely is it that the whole wage system will be employed. Like Griselda Rowntree, she finds that this system is particularly common where the family live on social security benefits. Townsend, (1957) writing of old people in the East End, says that very often a couple switch to a whole wage system when they become dependent on pensions, while before retirement they had a system much the same as that described by Bott (1968) or Shaw (1954).

A finding common to three writers (Land, Townsend, and Griselda Rowntree) is that amongst low-income families depending on pensions and social security benefits, the system prevails of leaving the disposition of the husband's income entirely to the wife. In Land's sample, this system is carried over to low-income families whose heads are in work; it is possible that this is because these families have from time to time been dependent on social security benefits.

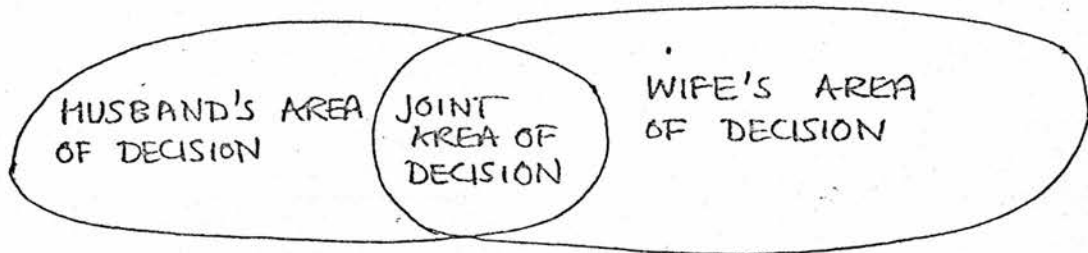
Having given this descriptive account of the existing literature on housekeeping systems, which presents a mass of rather piecemeal evidence, I come now to examine specifically those aspects of housekeeping systems which are relevant to the construction of an integrated model of the family's economic behaviour. In order to work out the two sets of economic implications of the family's internal allocation system, which I set out earlier, it is necessary to develop a typology of the way in which commodities are divided into husband's expenditures and wife's expenditures. It is also necessary to examine further the question of how the housekeeping allowance is determined, which entails first considering the relation of the housekeeping system to the couple's role relationships.

The method of allocation of family resources  
to different purchases

Oeser and Hammond's conceptual framework is one of the most useful here. They analyse family decisions in terms of husband's and wife's exclusive areas of decision making, areas of joint decision, and areas where either spouse may decide alone. (See Diagram 2) Blood and Wolfe (1965) have a similar typology of decisions, but consider the areas of de-

DIAGRAM 2

(A SIMPLE VERSION OF OESER AND HAMMOND'S MODEL AS APPLIED TO EXPENDITURE DECISIONS)

DIAGRAM 3

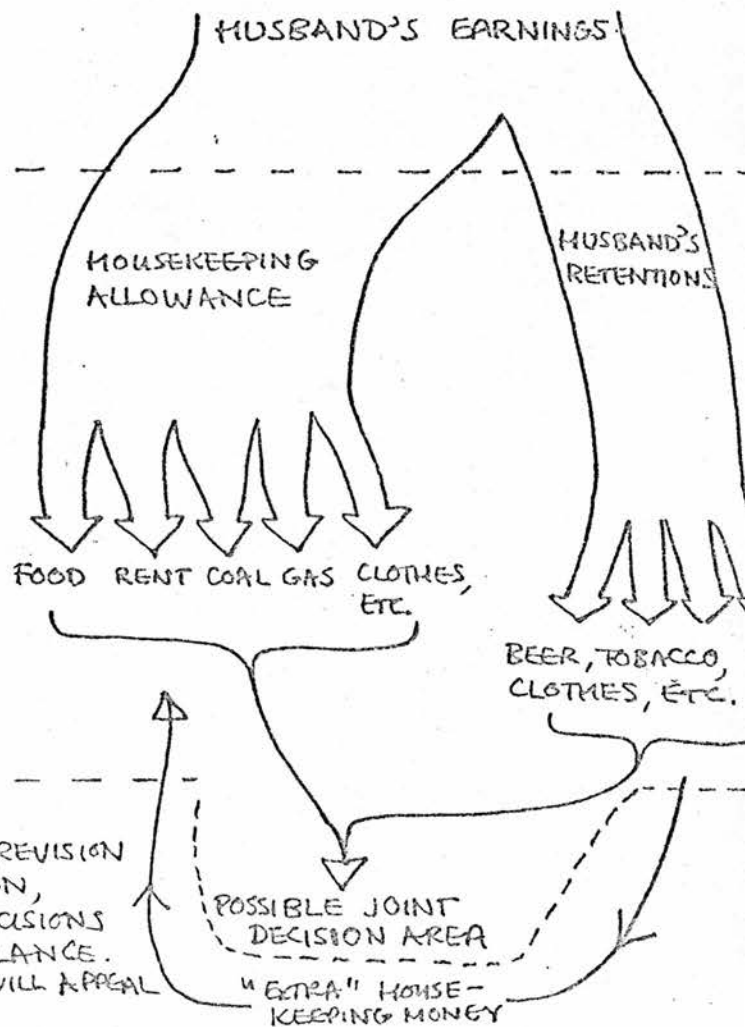
(MODIFIED FORM OF OESER AND HAMMOND'S MODEL, INCORPORATING THE CONCEPT OF A DECISION HIERARCHY)

FIRST LEVEL DECISIONS

INCOME IS DIVIDED INTO "HOUSEKEEPING" AND HUSBAND'S RETENTIONS

SECOND LEVEL DECISIONS

ALLOCATION OF EACH FUND TO PARTICULAR COMMODITY GROUPS

THIRD LEVEL DECISIONS

OTHER PARTY APPEALS FOR A REVISION OF THE FIRST LEVEL DECISION, BECAUSE SECOND LEVEL DECISIONS HAVE LEFT A NEGATIVE BALANCE. MOST COMMONLY, THE WIFE WILL APPEAL TO THE HUSBAND.



cision making to be areas of power. I would rather consider them in a neutral way as Oeser and Hammond do. But the concept of decision making areas is not enough; one must also think of a hierarchy of decisions.

Do decisions in one area determine any decisions in another area? And if the husband's decisions conflict with the wishes of the wife or vice versa, who has the final say?

A hierarchy of decisions may easily be identified in the picture of the housekeeping system presented in Section 1. That is, it may be identified in the division of the family income into funds or streams of money which are then directed each towards particular groups of purchases. The notion of a hierarchy of decisions is combined with that of a flow diagram in Diagram 3.<sup>5</sup>

The husband makes the primary decision as to how much work; this determines the size of the family income. The division into housekeeping money and the husband's retentions then places a resource constraint on the total expenditure which can be made on each set of commodities. This constraint is mitigated, in the case of collective expenditure, by the possibility of third-level reallocation between husband and wife. But such reallocations are in the gift of the husband. Thus, the husband appears to have control over all of the three major decisions; how much to work, how much to keep for himself in the first place, and whether to give any of this money to his wife if she asks for it. Young lays great emphasis on this power of the husband to determine the standard of living of his wife and children. On the other hand, there are presumably social norms governing these de-

<sup>5</sup> Assuming, as before, for the sake of simplicity, that he is the only wage-earner.



cisions. The probability of serious conflict in the family concerning them will depend on the way in which these norms are generated and enforced.

Here, the literature on this subject presents two contrasting types of life-style. On the one hand, we have the picture of an "affluent" working-class culture such as that described by Goldthorpe and Lockwood, and, more clearly in this respect, by Zweig, in which marriage is seen, in its economic aspect, as a partnership.

Husbands and wives develop consumer ambitions concerning the equipment and improvement of the home, and other major expenditures. The wife's earnings may be regarded as helping to fulfil these ambitions (for this view see also Jephcott, 1962). For home-centred families like these, the emphasis is on joint decisions and purchases for collective use; so that norms regarding earning and spending will have reference to this partnership pattern and will probably be generated by family units rather than inter-family units. On the other hand, the literature presents us with a completely different picture of the family in a traditional working-class community, such as of Bott's "Newbolts" or the "Ashton" community. In the Ashton community, norms about men's behaviour arise as much if not more from the work-place group, to which the men are strongly attached, as from the marital setting. Similarly, the women in both these descriptions of traditional working-class life are strongly attached to neighbourhood and family-of-origin groupings, so that norms about women's behaviour will arise from that setting at least as much as in the family-of-marriage setting.

Thus, the two partners of a marriage in such communities may have norms about earning and spending derived from different settings, and hence these norms may conflict. Bott's "Mrs. Newbolt" refers to the frequency of such conflict in her circle.

The segregation of the social milieu of the sexes seems to be accompanied by greater segregation of husband's and wife's areas of economic decision-making. In Ashton, the wife receives a "wage"; she never questions her husband's decision to miss a shift. Thus the husband's decision about how many hours to work is effectively insulated from week-to-week variations in family needs. Both the Ashton women and Mrs. Newbolt make all the budgeting decisions on behalf of the family; neither know how much their husbands earn. This theme of greater individualism in the traditional culture is one which I shall take up again in Chapter 5.

It would seem in general, from the studies cited, that despite the possibility of conflict concerning the distribution of the family's resources, the allocative system is a normative system rather than a bargaining process.

I make this point because I want, in a later chapter, to examine the notion of commodity sets in consumers' expenditure with substitution barriers between them - the two principal sets being husband's expenditure and wife's expenditure. If the allocation of income within the family is regarded as being determined by a bargaining process, price increases could be used by either party to support claims for a larger share of family income, or a reduction of purchasing responsibilities. If, on the other hand, the

allocation system is normatively based, it is likely to be stable over considerable periods, and the barriers to substitution between husband's goods and wife's goods will therefore be stronger than if a bargaining procedure does exist.

The concept of a hierarchy of decisions about the family budget can be illustrated by the modification of Oeser and Hammond's model, shown in diagram 3. The flows in this diagram, and the terms used to describe them, form the basis of the model of the housekeeping system, with reference to which I shall analyse the empirical data on such systems in Chapter 5.

The flow diagram poses two sets of questions the first group related to the commodity-set problem, and the second group related to work incentives. Questions related to the commodity-set problem are:-

- (1) how rigid is the division between husband's retentions and housekeeping allowance?
- (2) at the second level, how rigid is the division of expenditure responsibilities between husband and wife; are there any commodities not strictly allocated to the husband's set or the wife's set of purchases?
- (3) on what basis are third-level reallocations made?

Questions related to the work incentives problem are, again, the first question posed above (this affects the degree of certainty surrounding the disposition of marginal earnings), and more importantly, how are marginal earnings allocated?

The literature presents a little evidence on the latter point. Tunstall ("The Fishermen"; 1962) finds that fishermen do not give their wives any of their overtime earnings. Brennan (1959) points out an interesting effect of family size: where a man has a large number of children, he will be discouraged from working overtime, because a large proportion of any increment in income has to go towards the housekeeping money. In "Ashton" (and this would be so wherever the housekeeping allowance is regarded as the wife's "wage") overtime money is entirely the husband's own, since the housekeeping allowance is fixed.

Another important problem is, why is it customary for the breadwinner to make the primary allocation of money between collective expenditures and his personal expenditure? The answer is because, clearly, it affects the use he makes of his labour power, which is regarded as an entirely and necessarily personal decision.<sup>6</sup>

I have already touched on an important point which arises in "Coal is Our life" and also in Kerr's book, namely that a high degree of husband's control over the distribution of income in the family entails a high degree of freedom for the husband regarding the amount of work he does. The Ashton husband keeps the wife's allowance at a low level precisely because he wants to be free to skip a shift when he wants to. The lower the proportion of income given to the

<sup>6</sup> This, again, could be an additional factor in the behaviour of retired couples and families living on social security: with this type of income there is nothing to decide about: hence the fact already referred to, that in such families the husband's entire income is often handed to the wife to be shared out.

wife as a regular allowance, the more free the husband is to do this. This is so even if he is responsible for some family expenses out of the money he keeps (such as clothes or fuel). He can always earn more money for these needs as they arise, and this allows him some flexibility in his work effort from week to week; whereas if he gives his wife an extra pound a week for clothes, instead of ten pounds every ten weeks, he is tied to earning that one pound regularly. When opportunities to work overtime, or to work at all, are erratic and unpredictable, the housekeeping allowance will tend to be depressed to the level of minimum expected earnings, and though this does not necessarily mean that the husband will have more for his own personal expenditure these circumstances (as in "Ashton") will present him with a strong temptation to spend what he retains on the needs of the moment rather than long-term family purposes. One would expect that husbands particularly prone to fatigue or illness will rely less upon overtime earnings for the wife's regular allowance, but keep it to a level they know they can guarantee. (This may even entail that older men, independently of changes in custom from one generation to another may retain more control of family expenditure than young men who can guarantee to work as much overtime as is necessary). Maintaining the payment of the regular allowance is a point of pride, and husbands feel embarrassed or have a sense of failure if they cannot keep up the usual allowance when they have to rely on social security benefits.<sup>7</sup> This may possibly account for the fact that a couple can change

<sup>7</sup> Personal communication from Mike Scott, based on his experience while working for the National Assistance Board.



over to a whole wage packet system on retirement when the breadwinner comes to depend on a fixed pension. His role as the earner who has a right to make the primary decisions about the allocation of his income, breaks down; and the wife, the manager, whose skill in eking out a small income is now all-important, takes over the task of allocating money between private and collective uses.

Returning to the questions posed earlier, concerning the commodity-set division, the concepts of joint and segregated role-relationships developed by Elizabeth Bott may be very relevant to the issue of how flexible is the first-level allocation of income, and how rigid are the commodity sets for which husband and wife take responsibility. In discussing the connection between purchasing responsibilities and control over expenditure, I have already touched on the possibility that there is an inverse association between the degree of flexibility in the housekeeping system and the extent of division of labour between the sexes. This association is shown clearly by Bott's work on role-relationships.

The separate decision making areas of each spouse are aspects of what Bott calls a role relationship. This she defines as "those aspects of a relationship that consist of reciprocal role expectations of each persons concerning the other" (op.cit., page 3). That the husband controls area A and the wife area B. of the total set of decisions to be made in the household, does not imply that the husband has power over the wife; it merely implies a division of labour. Bott examines the structure of decision making in relation to the family's connections with a network of external acquaintances.



She distinguishes extremes of the division of labour in the family; the segregated role relationship, where division of labour is marked, and the joint role relationship, where division of labour is minimal. Couples with segregated role relationships do not have joint friends; they do little visiting or entertaining together. The husband has his friends and the wife has hers. Relations and neighbours, and for the man, workmates to some extent, constitute the greatest number amongst these friends; contacts made in other ways are few. Couples with joint role relationships, on the other hand, have joint friendships and leisure pursuits, with contacts drawn from a wider range of sources, such as clubs, organisations, evening classes, churches, and more frequently from work than the contacts of the segregated-role couples. Amongst couples with segregated role relationships, the acquaintances of each spouse are quite likely to know one another, because many of them belong to the same extended family or live in the same area. This set of acquaintances form what Bott calls a "connected network". The husband and wife who have this sort of relationship are likely to live in the same district and keep the same friends all their lives, without their marriage affecting their individual social contacts very much. Couples with joint relationships, on the other hand, are much more likely to be geographically mobile, and make or maintain friendships through their marriage instead of outside it. The segregated relationship is associated with the working class and the joint relationship with the middle class; but the association is not so consistent that class can be taken as an indicator of the type of relationship.

Bott illustrates the connection between role relationship and housekeeping system in her description of the family organisation of the "Newbolts", a family with highly segregated roles. Mrs. Newbolt had a fixed housekeeping allowance, the amount of which was determined by the custom of their acquaintances rather than by her husband's earnings, the size of which she did not know.<sup>8</sup> If this allowance was not enough to cover the needs in a particular week, she would ask him for more. She felt that he was amongst the more generous of husbands because he never denied her this; and thought that most couples quarrelled about money.

The arrangements governing family expenditure in couples with a joint role relationship are much less thoroughly described. Of them, Bott says only that joint decisions predominate in the financial as in other spheres. Thus although her analysis with regard to segregated role relationships is useful, her analysis with regard to joint role relationships is not clear in the terms of the flow diagram presented above. However, it presents two very important ideas which will be examined in Chapter 5; firstly that the housekeeping system is an aspect of the division of labour between the sexes (in the areas of decision-making and of economic functions), which is itself an important dimension of the continuum between a "traditional" working class type of family life style at the one extreme, and a middle class life style at the other. Secondly, Bott's analysis shows that the degree of this division of labour is associated with patterns of relationships which both spouses have outside the family.

<sup>8</sup> Bott, op.cit., p.71.

Jephcott et al (1962) provide some evidence that the breakdown of the rigid division of labour between the sexes characteristic of "traditional" working-class cultures leads to corresponding changes in the housekeeping system. This is associated, in their sample, with an increase in the proportion of married women going out to work; this factor perhaps breaks down the traditional role structure in which the husband's economic role is one of "breadwinner" and the wife's that of "manager".

Jephcott et al (op.cit., 1962) find, in their sample of Bermondsey women, that whilst "the mums used to be the bosses round here" (i.e. the "power" of women in the family has declined) family financial organisation and family economic decisions have become the subject of more frequent husband-wife discussion; and the housekeeping system is more flexible than in the last generation. The allocation of responsibility for paying for this item or that item varies from week to week, depending on the fluctuation of the husband's earnings. The women attribute this greater flexibility to the fact that most of their generation of wives work, whereas those of the previous generation did not. They say that when the wife has earnings of her own, the husband can keep more of his income for himself; the effect of the wife's earnings is to ease the pressure of collective needs on personal expenditure. But at the same time a very frequent economic reason for the wife working is to buy furniture and domestic equipment. We can see, therefore, that her earnings are to some extent "earmarked" for things that the family would not have otherwise; and expenditure on large items of this kind is likely to be very uneven from week to week. Hence the husband's responsibility to provide

for all the family's needs can be lifted in some weeks but not in others. When he has earned less than usual, he can lean on his wife's earnings; but when she has put down the deposit on a new washing machine, he has to pay for everything that week. This presents a picture of shifting areas of financial responsibility, in the short and medium run determined by the family's economic circumstances, in particular the week to week composition of total household income, but in the longer run influenced by cultural norms affecting family organisation. The degree of flexibility itself is determined by this long-run cultural change, which in turn takes place together with changes in the structure and magnitude of family income.

#### 4. Summary and conclusions

There is a general lack of pattern in the literature which refers to housekeeping systems; whilst the connection between role-relationship, "traditionality" of life style, and the housekeeping system is plausibly made by Bott and by Goldthorpe and Lockwood, this aspect of family organisation does not seem to be related to other socio-economic factors in a way which is immediately discernible. Moreover, in setting out the variants apparent in the literature, one can see that they are capable of a good deal of misinterpretation. Since many of the writers did not intend to investigate this aspect of family behaviour systematically, it is easy to read into their statements and their informants' statements implications which are perhaps not intended or justified.

However, for what it is worth, one can attempt to list the main systems found in the studies referred to, and place

them in order from the extreme of wife's control to the extreme of husband's control:-

Maximum wife's  
control

- (1) the husband hands over his whole wage packet, and the wife gives him pocket money back.

(Kerr, Land, Humphreys)

- (2) the husband hands over his entire income after first taking out his pocket money, and the "allowance" given to the wife is thus determined on the basis of total income minus pocket money.

(G. Rowntree, Land, Brennan).

Some small collective expenses may be paid for out of the husband's retentions, such as presents, children's pocket money or saving.

- (3) the husband's retentions are larger than in (2), because they include at least some of his overtime and bonus earnings; thus the housekeeping allowance is more related to the husband's basic wage than to his total income. (Lend, Tunstall).

- (4) the husband decides on a sum which he considers his minimum expected earnings, and the wife is given an allowance based on this

amount less husband's personal needs (c.f. Kerr, Dennis et al). The minimum expected earnings figure may include some overtime or bonus earnings, or it may be less than the basic wage (in the case where work is heavy and a certain amount of absenteeism is a work-group custom, as in "Ashton" or where short time is a high risk, as in winter construction work). Hence where employment is casual or the basic wage very low, husband's retentions could be a very high proportion of the total wage, as in Kerr's sample.

- (5) the husband gives the wife a housekeeping allowance corresponding to the community norm but this may be extended if she runs out of money during the week.  
(c.f. Bott, Townsend)
- (6) As in 3, 4 or 5; but the husband retains responsibility for specific items of expenditure, e.g. fuel bills, clothing or furniture, which are important items in the family budget. This feature could occur in system 2 as well, but is more frequently mentioned when husband's retentions are high. (c.f. Dennis et al., Townsend)

Minimum wife's  
control



It is easy to see that system 1 represents the largest degree of wife's control, and that 6 is the largest degree of husband's control. But there are big problems of definition. The most clearly distinct system recorded in the literature is (1). Other systems (2 to 6) are more difficult to define and distinguish; 2, 3 and 5 could be identical; system 4 can only be distinguished as something different from system 2, 3 or 5 where the occupational situation of the husband entails that basic income can vary sharply from week to week.

Therefore, the only clearly defined systems are the extremes, the whole wage packet system, and system 6. But the critical feature of system 6 can be combined with any of systems 2 to 5, so that the categories are not mutually exclusive. Although the minimum amount of money which may be regularly given to the wife decreases as we go down the scale, the maximum amount given may not decrease in this way. Since system 6 can be combined with other categories, the proportion of the husband's income devoted to collective purposes is not scaled by this typology. There are really two separate variables here; the proportion of "collective" items of expenditure which the wife controls, and the money value of expenditure on collective items in relation to the husband's total take-home pay. This must be considered in relation to our "formula" for the individual's net advantages gained from his earnings through the family economy, which was set out in Chapter 2. Both the proportion of his income devoted to collective purposes, and the control he has over collective items of expenditure, affect the husband's net gain from his earnings. If he has the kind of discretionary

control envisaged in system 6, he is less likely to find money appropriated for collective purposes spent in ways he does not want. Whilst the total proportion of income devoted to collective purposes is interesting in itself, what is needed is an "index" of husband's control which will incorporate both these variables. The "net advantages" formula applies to wives as well as husbands, and in a separate chapter I shall examine the literature relating to the role of the wife in expenditure and other decisions, to her choice whether or not to work.

The difficulties of constructing a typology of house-keeping systems from the data already available are aggravated by the fact that we have little information about the kind of responsibility for individual items which the husband's retentions are used to pay for - such as saving, or paying fuel bills. No clear description of husband's and wife's areas of control at the second level of decision making emerges. This deficiency affects particularly the commodity-set issue. In fact there is very little from previous literature that will answer the major questions posed in this chapter. There is insufficient clarity of concepts, and the cultural correlates of different budgeting practices remain for the most part obscure. Young's question as to how much of the family income is devoted to collective purposes, is not adequately answered even by Young himself, because he pays little attention to collective payments out of the husband's retentions.

It is, therefore, the questions posed here, rather than the answers which previous studies offer, which provide the focus for the empirical investigation of housekeeping systems in Chapter 5.

METHODS OF FIELDWORK AND DATA ANALYSISObjectives of the Survey

In the first chapter, I laid down the general objectives of a study of the economic behaviour of working-class families. These objectives have, I hope, been clarified by the two intervening chapters. In this chapter, I consider what sort of data are required for such a study, and what sort of sample it was desirable and necessary to use, and describe the actual methods of sample selection and data analysis.

The researcher is nearly always faced with a conflict between the type of project which theoretical considerations would ideally require, in terms of sample size and coverage, and what sort of project resources will permit. This conflict was particularly acute in my case.

Within their limited resources, the choices open to research students are few. They may undertake a large number of interviews, using a relatively small number of variables. Or they may forego fieldwork altogether. Or they may, as I have done, undertake a small study covering a very large number of variables, and set up models of some complexity which, one hopes, will provide pointers for further research, and may eventually be tested on larger samples. Such studies, as it were, fulfil the function of a large-scale pilot study. It seems to me that this method of approach is really the only one appropriate for a field of study such as I have chosen, for the following reasons:-

- (1) a non-empirical study, that is one which confines itself to bringing together and commenting

upon other people's work, is ruled out in this case because there is a dearth of systematically collected evidence on the allocation of income within the family and the effects that this has on family members' willingness to work.

- (2) since this is so, one is led towards some kind of survey work; the question is whether this should more appropriately be a study with a large number of cases and a relatively small number of variables, or a study with a large number of variables and a small number of cases. The latter seems to me to be what is most required, because the main deficiency of the literature, both sociological and economic, on the economic behaviour of families is a lack of connection between findings on various aspects of behaviour. Economists know a lot about demand functions, and about savings behaviour; they do not know as much about the effect of incentives and disincentives to work or about individuals' propensities to work, as they would like to. Knowledge in each of these fields has been built up to a large extent independently of the other fields, as I pointed out in the first chapter. Where new insights and evidence are most required is in the connections between different aspects of family behaviour. Again, sociologists have built up a body of knowledge about family role structures and community norms of economic behaviour, which, owing to unhelpful boundaries be-

tween disciplines, have not been "fed back" into the economists' models. There are, therefore, a large number of potential connections to be made between discrete academic fields. This of course points to the many-variable, few-case type of study, rather than to the many-case, few-variable type, which is more suitable for concentrating on a particular field.

I therefore decided, to analyse a large array of variables from a relatively small number of interviews.

#### Method of sample selection

In deciding upon the method of selecting the sample, I was guided by a number of criteria arising from the nature of the information required from the survey. Firstly, since one of the central issues to be investigated was the men's take-up of overtime work offered, it was essential that I should have some knowledge of the amounts of work available and the conditions of work in the establishments where the men were employed. This suggested selection of informants via their employers, rather than via the electoral register, the obvious alternative. Another major argument for this method of selection was that it would enable me to check informants' statements about their income. If, as several previous writers on the allocation of income within the family have suggested, the wife may not know the husband's wage, or the husband may not wish to reveal his earnings when his wife is present, it would be difficult to obtain an estimate of the husband's income independently of the housekeeping allowance - and such an estimate is quite essential to the enquiry. If the sample were selected from

a few firms, whose co-operation could be enlisted, it would be possible to obtain information about the sample's wage rates. This would enable me to calculate what the informants' income was, independently of the men's own statements, provided that people were willing to say how much overtime they worked. If the company's wage rates for different grades and occupations are known, it is simple to work out what a man working so much overtime would have earned.<sup>1</sup>

The method of doing this is given in Appendix A of Chapter 5. I did not feel it ethical to ask employers about individuals' incomes, and I am sure this information would not have been given in most cases.

It was desirable that the number of firms from which the sample was taken should not be too large, so that there was, for each firm, a substantial group of informants for whom common features of their work situation could be identified. This point is particularly important in relation to overtime working, for example: one wants to know to what extent individual variations in overtime hours are the consequence of variations in overtime opportunities provided by employers. Consequently, I excluded from the sampling frame certain industries which employ only a very

<sup>1</sup> A few errors may arise in such estimates, mainly because of ambiguities in men's descriptions of their occupations or working hours. However, on the whole it seems a useful way of checking income statements, and it turns out that a majority of income statements corresponded to estimates made in this way (see Chapter 5, Appendix A, where the question of errors in the estimates is further considered).



small proportion of the Edinburgh manual male labour force, such as textiles and retail distribution. To include these as substantial groups in the sample, would have meant that they were over-represented by comparison with their small size in the population as a whole, and to include only one or two individuals from each of these smaller industry groups would have made it difficult to obtain enough information about their work situation. I therefore felt it best to exclude these small groups from the sample.

At the same time, it was necessary that the working conditions and overtime opportunities of the sample should be various. It was difficult to think of an industry which was likely to contain a sufficient variety of conditions in one or two firms. Consequently, it was desirable to take firms from a selection of different industries, and so that this selection should not be arbitrary, I decided to sample one firm from each of the major industrial groupings represented in Edinburgh (excluding services, since service industries do not employ many male manual workers).

The foregoing considerations lay down some requirements for the nature of the sample which conflict with the more general constraint that any sample used in a research project should, if possible, be random.

To select a sample through employers runs a high risk of departure from randomness, because there are two stages in the process at which refusals may be made; the firms may refuse to help, or the individual employees may refuse to be interviewed. I decided to run this risk, because of the very strong arguments given above in favour of this method of

selection. In fact, since the refusal rate of firms was over half of those asked, the sample probably is non-random.<sup>2</sup>

In asking the co-operation of companies, the person approached in the first place was the personnel manager, works manager, or managing director, or in the case of very small firms, the letter was addressed simply to the company. A few approaches were made by telephone only, but most were by letter, followed up by telephone calls when there was no reply after two weeks. In every case except for the very small firms, it was suggested to the company that it would be desirable to get union agreement before a

<sup>2</sup> It was noticeable that smaller firms were particularly likely to refuse, but, apart from this, it is difficult to see what particular kinds of bias may have resulted from the refusals of firms to participate. The reasons for non-response or refusal of firms were as follows:-

<u>Refusals</u>	<u>No.</u>
Firms about to move, close or be taken over ...	3
Did not want company to be responsible for handing names and addresses over .....	4
Thought firm doing too many surveys for the government already .....	2
Refusal from trade union .....	1
Firm "too busy" .....	1
Reason for refusal unclear .....	2
	<u>13</u>
<u>Unsuitable firms:</u>	
Firm too small for sampling .....	4
Firm did not employ many male workers .....	1
Firm used services of sub-contractors .....	1
<u>Non-response</u>	
Employer did not reply to letter, and repeated phone calls were unsuccessful .....	15
Trade union did not reply to letter .....	1
No production establishment in Edinburgh (i.e. office or shop only) .....	3
Total unsuitable or not replying .....	<u>25</u>

sample of employees' names and addresses was given to me, although in some cases this request was brushed aside. I believe that in all but three of the firms whose men were finally interviewed, union representatives were consulted. The reason for my request was mainly ethical, although I did also expect that whether the unions were consulted would have an effect upon the refusal rate of the individuals approached. Of the three firms in which I suspect unions were not consulted, one had the highest refusal rate in the sample, and one had the lowest. It appears, therefore, that this expected effect was overshadowed by other influences on the refusal rate. It is, of course, impossible to know what sort of consultation there was between the company's representative and the union officials; in only one case was I actually present. It is possible that some companies informed the unions rather than asked for their consent; though in one of the printing firms, the Father of the Chapel asked each employee if he was prepared to take part. In most cases, managers said that they thought it would be best if they spoke to the union representatives rather than me, but in one case I was asked to contact the union myself, and they did not reply to my letter.

The sampling frame originally used for companies (apart from transport undertakings) was the list drawn up by the Department of Employment and Productivity for Census of Production purposes, in November, 1966. This list gave the size band, by number employed, for each firm, so that it was possible to see which was the modal size band (i.e. the one employing, altogether, the greatest number of people) in each

industry. I decided to try to obtain firms in or near to the modal size band as far as possible (on the grounds that these would be most typical of work organisation and production methods) though in the construction industry the modal size was so small (less than 10 men) that it was obvious several firms would have to be sampled, in order to end up with a sufficient sample of informants from this industry (particularly since employers tended to object to a very large sampling fraction being used).

The industry groups from which it was originally intended to take the sample were: food, drink and tobacco; chemicals and allied industries; engineering and allied industries; timber, furniture, etc.; printing, paper and publishing; textiles and clothing; miscellaneous manufacturing industries; transport, construction; and public utilities. Only three firms in Edinburgh can be identified which belong to the "chemicals" group; one of these agreed to co-operate, but withdrew the offer at the last moment because of an imminent take-over by another company. Of the remaining two chemical firms, one had refused and another was very small. In the textile group, no firm could be found which would co-operate and which had a substantial number of male employees. Thus only eight of the ten industrial groups are represented in the sample. To make up the deficiency in numbers arising from the chemical firm backing out, I took a second transport undertaking, a bus company, which seemed to deserve attention because of the very large opportunities for overtime work available to its employees.

The group of firms from which informants were eventually taken was made up as follows:-

1. a brewery, in the modal size band of over 500 men.
2. an engineering firm. The modal size of engineering establishment in the city was less than 50 men; this firm had about 70 employees. It made printing machinery.
3. two firms in the timber industry. One was in the modal size band of 11-50; and it was therefore necessary to take another, which employed about 30 men at its Edinburgh establishment and many more outside the city. Both were saw-mills, so that mainly unskilled men were employed. Their work consisted of moving imported timber from the docks and cutting it into lengths and sections locally required.
4. two printing firms, one in the modal size band of 101-200 employees, the other employing only 6 people. The first agreed to provide a sample of 20 employees, so to make up the numbers in this industry, I took also a paper firm, which employed about 100 people, of whom most were women. It made envelopes.
5. a rubber factory, somewhat larger than the modal size for the "miscellaneous manufacturing" group, which was 200-500.
6. the Gas Board.
7. British Rail.
8. a bus company.



9. two building firms, one in the modal size band of 11-50 men; one with several hundred men, not all of whom worked in Edinburgh. This firm was however just as representative of the industry as the first, it and another very large firm together employed almost as many men as did all the firms together in the modal size band.

To control the family composition variable, I decided to interview only couples with children of 18 years or under apart from a small control group.<sup>3</sup> It could not be discovered from the firm's basic records whether employees had children; this would have meant someone looking through the tax codings for me, and I felt that in most cases this was too much to ask. Thus, assuming on the basis of census data that about half<sup>of</sup> married men have children living at home, it was necessary to double the number of men finally required, and add a further number to allow for refusals and non-contacts, in order to obtain the number of names to be sampled. My target sample size was 200 (this being the maximum number that interviewing resources permitted) so, assuming, as I did in the first place,<sup>4</sup> that there would be 10 industry groups represented in the sample,

<sup>3</sup> It seemed desirable to include some couples without children, for comparison, to see particularly if their housekeeping systems were very different from those of couples with children. In order not to devote excessive effort to this, however, since interviewing resources were restricted, I limited the size of this group to 10, of whom seven were eventually available for interview.

<sup>4</sup> The textile firms were amongst the last to be approached, and the chemicals firm did not back out until the ten of the sample had been selected.



it was necessary to obtain 50 names from the firm or firms representing each industry. I expected this would give 25 men who were eligible to be interviewed, out of each 50, and that perhaps 5 of these would not wish to be interviewed or would be unavailable. However, many of the smaller firms were reluctant to use a large sampling fraction of their payroll, just in case the employees resented their names being passed on. This meant that for the smaller firms which I approached, I was offered maximum numbers of 20 or even a dozen names. The problem was then, should I:

- (1) ask for more names from the largest and most co-operative firms,
- or (2) seek the co-operation of more firms
- or (3) make do with a smaller sample than the intended 200.

I thought the first solution unlikely to succeed, since it was so much trouble to persuade firms to give me even 50 names (only one gave as many as 50, though three gave over 40). In the case of the nationalised undertakings, each employee had been informed individually by the management that his name had been put down. This meant the procedure took considerable time and money for the company, and I therefore did not expect that they would be willing to extend it. Solution 2 had rather low chances of success, in view of my earlier experience. Moreover, by the time this choice had to be made, selecting the sample had taken nearly two months and the work was running behind schedule; interviewers were ready to start and I was afraid they would take alternative work if they could not start soon. I therefore decided to make do with a total of 326 names instead of the original target of 500.

Sampling within the firms was, with four exceptions, from an alphabetical list of employees (or a list in order of clock number, or however the firm had the list arranged), taking a name at a fixed interval, the size of which depended on the length of the list. One firm, on the personnel manager's initiative, used random number tables instead. In the smaller of the printing firms, all married men living in Edinburgh were interviewed (there were only three of them). In the larger printing firm, the firm selected a set of people, and the Father of the Chapel then went to ask them whether they were willing to participate. He achieved a success rate of over 60%, although since I had not been told in advance that this was to be done, I had not met him and he knew little about the proposed survey. In the paper works, the only method of approach acceptable to the works manager was for me to go round the factory during the working hours and ask people if they were willing to be interviewed. (The interviews took place later in their homes, so that their wives could be interviewed too). Despite the problems of talking above machine noise, which were considerable, I felt that this method saved a lot of trouble and wished I had used it more extensively; but clearly with some production processes it would not have been possible (and it would have been arduous where some men could only be found on the night shift).

It was difficult to be sure that the procedure for periodic sampling was closely followed; I suspect that some unofficial screening took place to eliminate those who were thought to be hostile to the survey. It was often difficult to explain to managers and their secretaries that this sort

of screening was the opposite of helpful. Nor, naturally, could they understand why one wanted to include in the sample people who worked so much overtime that they were rarely at home.

The final response numbers are shown in the table on the next page. The categories "refused" and "ineligible" may each contain some of the other, since if people said they did not want to be interviewed, it was frequently not practical to ask them whether they had any children living at home. Or, if the criterion of "eligibility" was first made clear by the interviewer, "I have no children" may have been a polite excuse for not being interviewed. Unfortunately there is no information about the refusers; the interviewers had an impression that they were, on average, older than those who were interviewed, but the reasons given for non-participation were rarely specific. Experienced interviewers who had worked previously for the Government Social Survey or for market research companies were more successful than students, though to what extent the students were unsuccessful because of their age as well as their lack of experience, cannot be assessed. A marked drop in success was experienced by students the week after the "gates" incident at L.S.E., suggesting that the public image of students had something to do with refusals; two refusals during this period were explicitly on the grounds that: "I don't want anything to do with students", and "I don't want anything to do with the university". Men students were considerably less successful than women students. All the non-student interviewers were women, so one cannot assess the sex factor there.

About half the informants had letters beforehand warning them that the interviewer would call, and explaining the research; but since this produced a response rate no larger than calls not preceded by letters, it was dropped. The experienced interviewers said that in any case they preferred to do the explaining themselves. A few interviews were done before Christmas of 1968; the rest in January to early March, 1969.

FINAL SAMPLE RESPONSE RATES

<u>Firm</u>	<u>Inter- viewed</u>	<u>Not Contacted</u>	<u>Refused</u>	<u>Wrong Address</u>	<u>Not Eligible*</u>	<u>Total</u>
British Rail	15	2	10	8	22	57
Brewery	17	8	8	2	8	43
Rubber Factory	15	3	4	7	12	41
Timber Merchant A	1	0	2	2	4	9
Timber Merchant B	1	0	1	3	7	12
Gas Board	13	1	11	7	8	40
Bus Company	11	2	7	7	17	44
Builder A	4	2	5	6	4	21
Builder B	3	0	0	0	2	5
Engineering Firm	3	2	12	0	5	21
Paper Works	3	0	3	2	3	11
Printer A	8	0	2	2	7	19
Printer B	3	0	0	0	0	3
TOTAL	97	20	65	46	99	326

\* excluding the control group of 7, who are included amongst those interviewed.

Out of 326 couples, only 97 were eventually interviewed. Of these, 90 had children under 19, three had no children yet, and four had children over 18. It is difficult to calculate the refusal rate, because so many people were written down as

"refused, but possibly ineligible". If it is assumed that all the couples who refused, were "eligible", i.e. had children under 19, then the refusal rate is 24.9%. But if it is assumed that the proportion of couples with no children is the same amongst those who refused as it is amongst the rest of the sample, then the refusal rate is 12.6%. The truth probably lies between these two figures. The percentage of people not contacted is 20.25%, of which the greater part (14%) is accounted for by the person named not being found at the address given. This rather high number of wrong addresses must not be attributed entirely to lack of accuracy in companies' records. In several cases the names were dictated to me, since I was never allowed to look at the original records myself. (They probably contained confidential matter). In other cases, typing or dictating errors could have arisen within the firm before a list was passed to me. Bearing in mind this reason for the unusually large number of people who could not be found, the proportion of refusals and non-contacted people is comparable with the 30% of households who failed to co-operate fully in the Family Expenditure Survey in 1967.

The question arises, who were the non-respondents, and what bias in the results may arise from non-response? One very important factor which must be considered is that some people may have refused because of the particular nature of the survey. Many people are reluctant to talk about their budgeting habits and financial circumstances, and this presumably accounts for the fact that surveys about such topics generally have a higher refusal rate than surveys about less "private" matters. It seems reasonable to suppose that amongst



those who are more than usually reluctant to talk about their budgeting practices are couples for whom these practices are a matter of dispute or tension between husband and wife. It is very likely, therefore, that this survey under-estimated the proportion of husbands who conceal their earnings from their wives. Of the several community studies referred to in Chapter 3 which touch upon this issue, those which did not take the housekeeping system as a central issue for investigation may be less biased in this particular respect than mine. Moreover, most of the surveys which have specifically investigated budgeting, to which Michael Young (1952) refers, took the wife alone as the informant, whereas I interviewed husband and wife together. Compared to these studies, therefore, mine may have under-estimated the number of husbands who concealed their earnings from their wives.

Turning now to a slightly different sort of bias, husbands may be reluctant to talk to an interviewer if they realise that the amount of pocket money they keep for themselves is unusually high. In this respect, the Edinburgh survey may be more biased than those surveys on housekeeping systems which have taken the wife alone as the informant. It may also be more biased than the data provided by community studies which have collected information on the housekeeping system without presenting the issue to potential informants as one of the principal matters for investigation.

These two forms of bias - towards an under-estimate of the number of husbands who do not tell their wives their earnings and towards an over-estimate of the average amount of housekeeping money - must be borne in mind in interpreting the results of the Edinburgh survey. I think it would be in-



correct, however, to attribute all refusals to husbands' guilty feelings. As I have pointed out, dislike of students was one reason for refusal; inexperience on the part of some interviewers (including myself) and the sheer length of the questionnaire may also have been contributory factors towards a high refusal rate in comparison to surveys not concerning financial matters.<sup>1</sup>

If it is assumed that the refusal rate arising from causes other than the subject matter of the survey was only 10% of those approached, the range of the refusal rate attributable to people's reluctance to talk about budgeting is between 2.6% and 15% (in accordance with the assumptions made on page 111 above). This, then, may be a rough indicator of the maximum number of non-responding "stingy" husbands. On this basis, out of 65 couples who refused to answer the questionnaire, about 26 (10% of all those contacted) may have refused for reasons unconnected with the survey's subject matter. Up to 38.1% of the other 39 who refused may have been ineligible anyway (this being the proportion of all those contacted who said they had no children). This could account for up to 15 of the 39, though possibly for none of them. Consequently, if I had been able to interview all the households with children who

<sup>1</sup> See for example C. A. Moser (1958), 1967 edition pp.130 et seq., where it is suggested that refusal rates are usually less than 10%, but that this may be exceeded by inexperienced interviewers. This figure may be optimistic, however, for example, the "affluent worker" study met with a refusal rate of 19.6% for an initial interview (see Goldthorpe et al., 1969, page 49). An Edinburgh survey of small shopkeepers had a response rate of only 64% (see Bechhofer and Elliott, 1973).

refused because of their reluctance to talk about budgeting, as well as those who actually were interviewed, the "reluctant" households (those where the husband concealed his earnings or kept a very large amount of pocket money) might have numbered, at most, between 19.8% and 28.7% of the total. The question of concealment of earnings by husbands is further discussed in Chapter 5; especially in Appendix A.

### The Questionnaire

Three versions of the questionnaire were used, one for the pilot study (10 cases, selected from the electoral register), and two versions for the main survey. The first version, given in the appendix of this chapter, was printed cheaply and did not leave the interviewer enough space for recording. The answer codes were also poorly laid out, and there were quite a few misprints. (The copy of this version

given in the appendix is shown with these corrected). It was therefore replaced in mid-February by a revised, duplicated version which left much more space for recording and laid out pre-coded answers in columns. At the same time, I took the opportunity to remove a few questions which were not producing useful data, and inserted a new section on the couple's friends and leisure activities, in order to obtain extra information about this for a subgroup of the sample. The last twenty interviews done used this revised version. Alterations and the reasons for them are given in the appendix to this chapter; the questionnaires are in a pocket in the inside of the back cover.

In analysing the data, I screened it carefully for differences between interviews arising from the differences between questionnaires, and found only one, concerning the question on the husband's and wife's attitudes to the wife's employment, which I refer to in Chapter 6. I think, therefore, that I was justified in changing the questionnaire. The reasons for doing so were largely to do with interviewer morale; interviewers felt that the whole thing was too long, too difficult to read and fill up; and that putting questions of the same kind more closely together in sections would assist rapport. They also thought that the order of the sections in the second version assisted rapport, because it got to the major points of the enquiry at the beginning, and, so to speak, justified the interview to the informants. I had, in any case, made it clear to interviewers from the beginning of the survey that they were free to word questions as they wanted provided the essential meaning was preserved; this, if nothing else, was a necessary concession to the fact

that the dialects in which they were accustomed to speak were different (some being English and some Scots) and their natural mannerisms consequently different. I also told them that the order of the sections did not really matter; this had to be varied sometimes in any case, because the interviewer could not guarantee that both spouses would be there for a whole hour or more. In a questionnaire of this sort, which covers a large range of topics, the relationship of which it is quite difficult to explain to the informant, and which deals with somewhat personal topics, it seems to me that the interviewer should be allowed considerable scope to vary the wording and order of the questions according to the particular reactions of each informant. Structuring of the questionnaire is, in fact, only desirable to the extent the matter to be covered is so diverse that it would be rather difficult for the interviewer to keep in her head, or in a brief set of notes, all the things she had to ask.<sup>5</sup>

<sup>5</sup> There is, of course, a body of opinion which would criticise varying the wording and order of questions on the grounds, firstly, that this is likely to produce variations in the answers, and secondly, that studies carried out under such conditions cannot easily be replicated (see H. Hyman: Survey Design and Analysis, 1955). To defend myself against the first objection, I would point to the fact that if no differences of any substance arose between the interviews conducted with the original and those conducted with the revised questionnaire; it is unlikely that major differences arose from interviewers' variation of the questions or their order. Against the second objection, I would argue that in so far as the most basic factual questions of the survey had to be replicated in order to confirm the findings, rewording was very rarely necessary for such questions. Where rewording sometimes proved necessary was in the questions about friends and leisure activities, which are deficient more for their lack of detail than anything else, and I have taken account of this deficiency in the data analysis. One would, I think, want to improve rather than replicate these questions. Moreover, there is a sense in which replication is impossible:- each interviewer/informant confrontation, represents a unique situation, upon which the effect of the interviewer's dialect (particularly important in this case) personality and mannerisms may have at least as much effect as the precise wording of questions.

In the pilot study, I started off with a structured questionnaire and after three interviews abandoned this in favour of a simple list of topics to be covered, because I wanted to experiment with different ways of asking the same thing. The unstructured method was much better as regards rapport, since one could take up lines of conversation suggested by the informants; thus they were able to take a topic to what was, for them, its natural conclusion, and gave information in greater depth and detail than in many of the main survey interviews. It was, however, very difficult to get through all the things I had put down in the structured questionnaire, if I used an unstructured method and let the informants determine the order of topics in the conversation to a large extent. It would probably have been still more difficult to anyone who had not designed the research in the first place.

#### Methods of Analysing the Data

In order adequately to examine the relationships between the many variables dealt with in this study, it is necessary to test relationships between pairs of variables within sub-groups of the sample, controlling for third variables, and perhaps even controlling for patterns involving several variables. In a sample so small as the one I have used (97 cases), some sub-groups which have to be examined are so small that relationships can be fairly strong without being statistically significant. I have, therefore, emphasised throughout that the study must be treated as exploratory rather than conclusive, and have included a number of results which are not statistically significant. The justification for this is partly a theoretical position which



I argue in appendix B. But first of all, it must be considered how far the sample is random; if it is not, significance tests are invalid anyway.

There are three reasons why the sample may not be random with respect to the working-class population of Edinburgh. Firstly, there was a high refusal rate from companies. Consequently, the companies eventually selected to represent each industry in the sampling frame may not be fully representative of that industry. Secondly, there is a less important source of non-randomness in the fact that not all industries employing male manual workers were represented. Thirdly, there is a bias resulting from the refusal rate of individuals. There is therefore some doubt as to whether the sample is random. This means that significance tests should be treated with caution throughout the data analysis. Even if valid, they are of limited usefulness, in so far as the population of working-class people in Edinburgh may differ in important ways from the working-class population in other parts of Britain. (For example, Chapter 3 raised the possibility of regional differences in house-keeping practices). One could, of course, treat the sample as random with respect to the population of the employees of the companies from which informants were selected. Significance tests are then technically valid (provided the refusals of individuals selected to be interviewed are not regarded as an important source of non-randomness) but less meaningful than if the population is assumed to be that of the Edinburgh working-class in general; the important point here is that if the selection of companies is biased (because of the high refusal rate of companies), the work environment



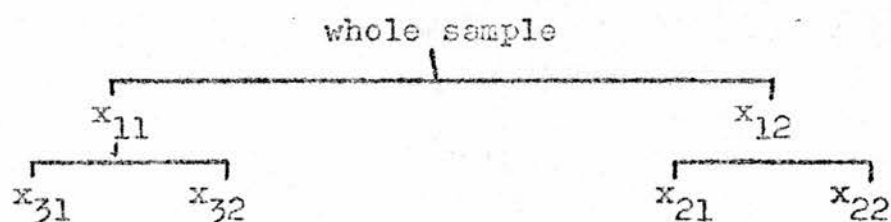
of the individuals interviewed may not be representative of the work environment of the Edinburgh population as a whole.

Given these problems regarding the use of significance tests, many of the findings presented in this study cannot be regarded as conclusive. Quite a lot of the data can really only be used to formulate more complex and specific hypotheses than those available from theoretical work. I present this study, therefore, as an exploratory investigation, the purpose of which is to formulate such hypotheses where it is not possible to establish conclusions for which there is definite proof.

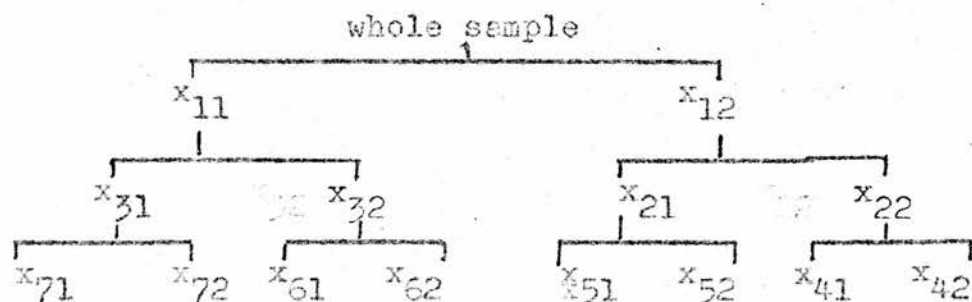
As a measure of strength of association in the analysis of my data, I have used the Q-test (c.f. Blalock, 1960, page 231). This test is a measure of strength of relationship restricted to  $2 \times 2$  tables, (which, however, is all the data can take in a good many cases, because of small numbers, and anyway quite obviously appropriate in many others). Unlike the chi-square test, it is designed as a test of strength of relationship, rather than a test of significance, and unlike chi-square, it gives the same result whatever the size of N. It however shares with the chi-square test the drawback that when one cell of the table is zero, the coefficient reaches its maximum (1 for Q, N for chi-square) whatever the number in the other cells. But this does not really present a problem because one can easily see what the association would be if one case were transferred into the empty cell from the other independent-variable category.

As a way of testing for spurious associations, and presenting variables with reference to their relative explanatory power within different sub-groups, I have adapted a

simplified version of the method of analysis known as the "Automatic Interaction Detector". This is used by the Prices and Incomes Board in their report on overtime and shift-working (1970, pp. 222 et seq.) by the Brookings Institution (1966) and by George Katona and Eve Mueller (1968). The procedure seeks to explain the scoring of cases on a dependent variable by their scoring on a series of independent variables which are arranged to classify the cases taxonomically. Thus the sample is first divided into sub-groups on the basis of their score on the variable most strongly associated with  $y$ , the dependent variable. Let us call this most strongly associated variable  $x_1$ , and denote those cases having score 1 on  $x_1$  as cases  $x_{11}$ . Similarly, cases having score 2 on  $x_1$  will be denoted  $x_{12}$ . Then these groups,  $x_{11}$  and  $x_{12}$ , are each sub-divided on the basis of whatever variable is most strongly associated with the dependent variable within the group. A variable tree is then started:-



Each of the four groups then obtained is sub-divided again according to the variable which is most strongly associated with  $y$  in the group in question. The tree could then become:-



Each branch of the tree is re-divided until the number resulting is too small for the test to be sensibly used (i.e. where any further sub-division gives a table in which the size of the association could be drastically reduced by transferring one case from one cell to another) or until no further explanatory variables can be found. How large must a Q-value be, to be regarded as interesting or meaningful? There is no formal criterion, since Q is not a significance test. What one is really asking, in looking at a four-cell contingency table, such as the one below, is whether cases in category 1 of variable y are distributed between categories 1 and 2 of variable x differently from cases in category 2 of variable y. General answers to this question must be one of three varieties:-

- (1) all, or a majority, of  $y_1$ 's are in  $x_1$ , and all, or a majority, of  $y_2$ 's are in  $x_2$ , for example, as in this table:

	$y_1$	$y_2$
$x_1$	19	3
$x_2$	1	12

- (2) both  $y_1$ 's and  $y_2$ 's are about equally distributed between  $x_1$  and  $x_2$ , for example in this table:

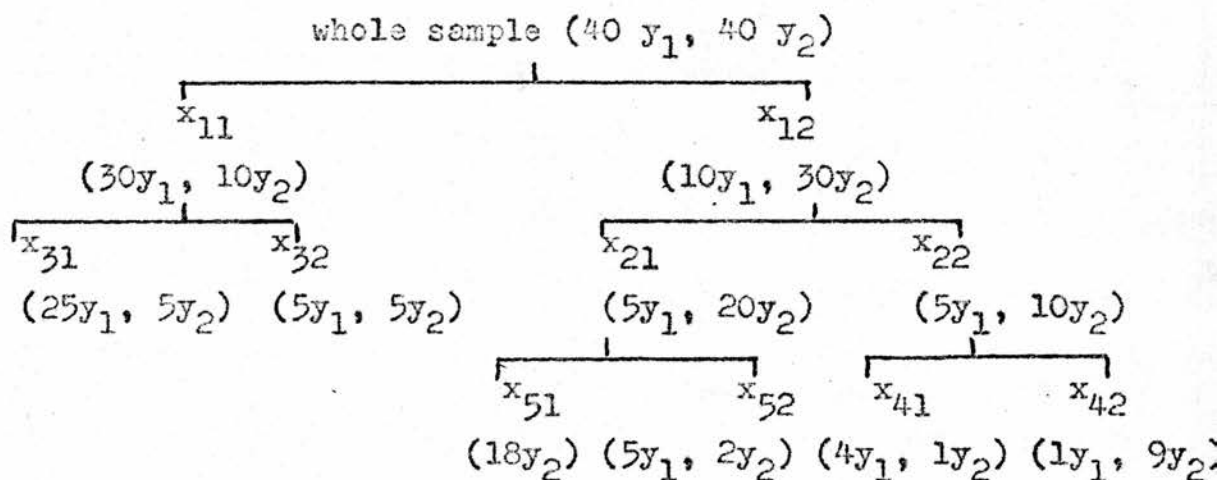
	$y_1$	$y_2$
$x_1$	10	7
$x_2$	10	8

- (3)  $y_1$ 's are about equally distributed between  $x_1$  and  $x_2$ , but  $y_2$ 's are not:

	$y_1$	$y_2$
$x_1$	10	5
$x_2$	10	10

The strongest relationships are obviously in situations of type 1 rather than type 3; and situations of type 2 would deserve the verdict "no relationship". The example given of a type 3 situation may be regarded as a marginal case. As it stands, there are twice as many  $y_2$ 's in  $x_2$  as there are in  $x_1$  - and this would, in many cases, be a point of interest in the data being examined. But if  $y_2$ 's were distributed any more equally between  $x_1$  and  $x_2$ , one would think the association minimal. So it seems reasonable to say that the example given of type 3 is about the weakest sort of relationship one would take any notice of. The Q-value for this table is 0.33. Should this, then, be a criterion value? If one case of  $y_2$  were transferred from  $x_2$  to  $x_1$  (making the  $y_2$  column read 6;9) the statement that  $y_2$ 's are much more concentrated in  $x_2$  than in  $x_1$ , whereas  $y_1$ 's are not would have less force than in the original example. However, it is clear that the difference between a 5;10 case and a 6;9 case could be very largely a matter of coincidence. For this reason it seems necessary to take a criterion value of Q somewhat larger than 0.33. (There is however no reason for making any hard and fast rule; the minimum value which can be regarded as interesting must depend to some extent on the matter in the table). I have, therefore, rarely taken notice of Q-values less than 0.4, and this only once in constructing the variable trees. All sub-divisions at the same level of the tree need not be by the same variable - they will be by whatever variable best explains the characteristics of cases in each sub-group. Thus in the example above, each of the four sub-groups arising at the third level ( $x_{31}$ ,  $x_{32}$ ,  $x_{21}$ ,  $x_{22}$ ) is divided by a different variable.

The method is similar in some respects to cluster analysis, because the ends of the branches will consist of pairs of groups with at least one of each pair more nearly pure in  $y_1$  or  $y_2$ , than are groups at the top or in the middle of branches. Thus the proportions of  $y_1$  and  $y_2$  cases might be as follows:-



Thus, group  $x_{31}$  is more nearly a pure  $y_1$  group than either  $x_{11}$  or the whole sample, but  $x_{32}$  has the same proportions of  $y_1$  and  $y_2$  as the whole sample.  $x_{51}$  is completely pure, and the other end-of-branch groups somewhat less so. Unlike cluster analysis, however, this method sets out to create groups of cases according to their score on a particular variable, and not according to their general differences and similarities. This means that the explanatory power of the results is, so to speak, "guaranteed", provided any variables in the set  $x_1, \dots, x_n$  are strongly associated with  $y$ . Cluster analysis, on the other hand, may produce groups which have no very general bearing on the dependent variable(s). The Prices and Incomes Board report on overtime and shiftworking (op.cit.) shows this problem quite clearly. Their cluster analysis does not distinguish any group notable for a lower proportion of overtime workers than

the sample as a whole. (op.cit., supplement, pp.229 et seq.) - and there is no reason why it should have done even if there is an explanation why some people do no overtime. Since cluster analysis groups cases which are similar, not cases which have a particular score on a variable specified in advance.

In my analysis, I used the Q test, as a measure of strength of association. This, of course, requires dichotomisation of all variables, but the majority of variables in the analysis either are naturally dichotomous, or need to be turned into dichotomous variables, because the cell sizes get very small otherwise. In common with other users of this method and of cluster analysis, I have very often treated particular scores of a variable as individual characteristics - for example, the informant's employer can be thus treated, and employers 1....n instead of being scores of the variable "employer" then become n variables of a dichotomous type (works for the ith employer or does not work for the employer).

For the interval scale variables, I drew up a correlation matrix of everything to see what associations turned up, but the coefficients were mostly very low.<sup>6</sup> (Subsequent analysis with regard to nominal-scale variables finds reasons for this in many cases). I therefore felt justified in dichotomizing even some of the interval scale variables, for example, the amount of overtime worked, which is treated as the dependent variable in the use of this procedure in chapter 6).

The same procedure is used for the explanation of housekeeping systems in chapter 5.

<sup>6</sup> This matrix will be found in the flap inside the back cover.



The method described above has the following functions:-

- (1) it points out interference between variables.  
For example, the association between house-keeping system and overtime which my theoretical model predicted, did not appear in the samples as a whole, but it did appear in the group of skilled workers. It was apparent that the skill-level factor and the association between housekeeping system and overtime cancelled each other out.
- (2) it points out the relative strength of explanatory power of a variable in different sub-groups.
- (3) it shows within which sub-groups a variable is important.

It is thus a good way of summerising the set of correlates of a dependent variable, in a more informative way than is a string of Q-values or chi-square values for the sample as a whole. It seems to me the most efficient way of analysing data which consists mainly of nominal scales, and a method of analysis appropriate to an exploratory study, since it enables the construction of relatively complex models of relationships between variables which are then suitable for further testing.

APPENDIX A

The original printed version gave a suggested form of words by which the interviewer should introduce here self and the survey, which the interviewers disliked; they preferred to devise their own methods of persuasion. It was therefore never used. Questions 22 and 57 were also deleted after the first 8 interviews. These were added on the advice of one of my supervisors after the pilot study. It was apparent that they lengthened the interview considerably, yet several of the answers were frivolous or vague, and interviewers felt that these questions were detrimental to rapport, because informants could not see the purpose of them.

Questions deleted from the questionnaire when it was revised were:-

- 13 and 14, if couple had no children over 11
- 15 (because it applied to very few couples)
- 16 first part
- 17 (because it was a follow-up to question 16)
- 18 (because the answers were nearly all the same - uniform expenses or sports equipment were cited, but very little else)
- 23 (because the answers were often difficult to interpret, and there was a good deal of husband/wife disagreement which did not follow any pattern, suggesting that people may have been saying the first thing that came into their heads)
- 25c and 26c (because they applied to hardly anyone)
- 32 (because more specific questions about acquaintances were asked)
- 33-37 (because more specific questions about acquaintances were asked, and because the answers to these four questions had been very vague)
- 51c was deleted because there was little variation in the answers

51d was simplified so that the name of the item, and the length of the outstanding contract, were omitted - since less than half the informants seemed to have any HP expenses, this seemed to be unnecessary detail

51e and 51f were replaced by more specific questions about leisure activities

53; the last two columns were dropped because informants showed little interest in answering them

52; cut out because the answers were similar to 51g, and very few people said that saving up for something affected the amount of overtime they did

54 was replaced by more specific questions about friends

55 and 56; cut out because of the same problems as question 23

60; cut out because the replies were very rarely different from the way in which overtime was actually divided between days of the week

63 cut out because most people did some overtime

71 cut out because no-one found their hours too long

72 first part cut out because several men said an extra hour in an evening made no difference, so that the second part of the question was more efficient without it. The question was intended to distinguish between marginal and general leisure pursuits, but informants obviously found this pedantic

73; the second and third parts were cut out because this information had already been picked up in the earlier questions about saving, with which it was generally consistent. This consistency check therefore seemed unnecessary

77; cut out because hardly anyone said yes

79; cut out because answers were too vague to be useful, generally rounded to the nearest five pounds

In addition to these deletions, the section on the wife's employment was considerably simplified, because the student interviewers found it difficult to follow, and the order of the sections was shuffled. Also, some questions were reworded; this will be apparent from a comparison of the two versions.

APPENDIX B

Galtung's caveats about the use of significance tests (1967, 1969 edition, pp.358-389) seem to justify a flexible approach to the use of such tests in small samples. He points out that whereas significance tests consider findings independently, results as a whole constitute a pattern of findings, and the truth or untruth of whatever conclusions one may draw rests on the pattern, rather than its individual components. This is particularly important in view of the high probability of making a Type II error (as well as the type I error to which methodologists have traditionally, I think, attached more importance) where the number of cases included in the test is very small (Bladock, 1960, pp.188-193). To put this in another way, the probability of a Type II error (i.e. of accepting the null hypothesis when it should be rejected) is greater, the smaller the sample. The smaller is the sample, the greater the probability that a finding will be found not statistically significant in circumstances where it really is true of the population as a whole. If a finding seems theoretically and logically consistent with other findings from the same sample, but is not significant, one may suspect a Type II error, although of course one cannot define the probability that a finding is generalizable to the population, without the aid of a significance test. Moreover, to pick out those elements in the data which are statistically significant, and ignore the rest, may distort the conclusions arrived at or models built from the findings. For example, if the presence of characteristic x is "significantly"

associated with characteristic y, and is insignificantly associated with characteristic z, two kinds of error are possible. One is to "find" a difference between the group having characteristic y and the group having characteristic z, which may not really exist in the population from which the sample was drawn, because of a Type II error in the test of the association between x and z. Another is to under-estimate the possible frequency of x, in the population as a whole, where this may be of theoretical importance. That is, the nature of the variables may be such that if x were significantly associated with z, one could say that z predicted x. A situation is then possible in which the survey method has under-estimated the frequency of x by literally not discovering that some cases have x, and that this is the reason for the association between x and z appearing insignificant. Without considering the possibility of a Type II error, one would not entertain this situation at all.

A separate, but also very important point in relation to the importance generally placed on significance tests, is that made by Galtung when he warns against confusing "the level of significance with the size of association" (ibid., 1969 edition, page 375). He points out that significance tests are not designed to measure the strength of association between variables. Consequently, a second test should be applied to find out how important, as opposed to how generalizable, a finding is. It seems to go against common sense to reject associations between variables which are very strong, but which are not

significant, provided one's only claim for the finding is that it may help to construct a model suitable for further testing on larger samples. If one were to claim that such findings were universally true, that would be another matter. I have already pointed out that the first, rather than the second, is my objective in this study. Galtung's advice on such cases, which are frequent in my data, is to reject the finding only if the probability of its being generalizable is very low, and perhaps also if the finding is not part of a general logical pattern. This procedure I have followed in cases where an important association has appeared in a very small sub-group of the sample.

What other implications has the probable departure of the sample from randomness? A departure from randomness becomes important if the sample represents some sections of the population from which it is drawn but not other sections. In this case, the nature of the sample selection and the refusal rate enables me to say, to some extent, what sections of the working-class population of Edinburgh are not represented. Certain industries (services, except transport, textiles and chemicals) were omitted, but these employ a relatively small proportion of the male manual labour force in the city. The sample does not represent the occupations predominant in the Edinburgh population in the correct proportions; building and engineering workers are under-represented, transport workers over-represented. Smaller firms were prominent amongst those who refused to help in the survey, and this may have some effect on the types of



working conditions encountered by sample members. Of the individuals approached, older people were more likely to refuse to be interviewed. One can suggest various ways in which these sorts of bias may have affected the data, and reference will be made to these in various parts of the analysis.

Even with a random sample, which represented the whole working-class population of Edinburgh, however, one would have a number of difficulties in interpreting the results. Galtung (1967, p.365 c.f. 1969 edition) has pointed out that where a sample is random, and is chosen from a population defined by the sampling frame, the problem still arises; are the results true of that sampling frame alone, or of a wider range of cases? If so, what is that wider range? Thus, even if one had a random sample, of the Edinburgh working-class population, one could only speculate, and can only speculate with this sample, whether the results are applicable to the whole of Scotland, the whole of the U.K., or merely to Edinburgh; and to what extent middle-class families, in any of these areas, would behave differently. The problem is particularly acute in view of the possible regional differences in ways of allocating the family's income between husband and wife, which I refer to in Chapter 3.

CHAPTER 5THE ANALYSIS OF HOUSEKEEPING SYSTEMS

This chapter presents the analysis of the data on the housekeeping system, or the system of allocating family income to different purposes. The information in the survey was analysed with four objectives in mind:-

- (1) to develop a descriptive typology of house-keeping systems;
- (2) to examine the cultural reasons for different allocations of family income to collective and private expenditure;
- (3) to examine the connections between the house-keeping system and other aspects of the family's economic behaviour, such as the purchase of durable goods and house ownership.

Under this heading fall the connections between the housekeeping system and the family's supply of labour to the market, but these issues, which require extensive analysis and cover a great deal of data, are dealt with separately in the next chapter. Sections 2 and 3 necessarily overlap in the subject matter they cover: but in section 2 I am primarily concerned to find indicators or predictors of particular housekeeping systems, whereas section 3 examines their implications.

- (4) to find out how the housekeeping system affects the standard of living of different family members; what is the relative share of the husband's personal expenditure, and what factors

influence this share. This set of issues is not really important to the main theme of my thesis, that is, to the problem of how to construct an integrated model of the family's economic behaviour. But it is the focus of interest in a great deal of the sociological literature on housekeeping systems, so that it seems a pity to collect data on these systems without attempting to answer the questions which others have posed. So that it does not interrupt the body of my argument, I have confined discussion of this area to a note at the end of the chapter.

In this chapter, I have included a good deal of detail on cultural variables which may not seem immediately related to the main problem of constructing a model of the family's economic behaviour. I have done this for two reasons; firstly, that in so far as the housekeeping system is an important variable in such a model, one needs to have cultural and demographic indicators of housekeeping systems. Such indicators may enable one to say what sort of housekeeping system is likely to be predominant in such and such a group of people, whose economic behaviour one wants to predict, without having to go to the trouble of investigating their family financial arrangements directly. The second reason why I have included so much cultural detail, particularly in section 3 of this chapter, is that the housekeeping system seems to be a question of some interest to family sociologists, yet one which has not been systematically

examined with reference to Britain in recent years. Consequently in this area too it would seem a pity to collect so much data as I have without trying to relate it to sociologists' analysis of working-class cultures.

#### Section 1:

#### A typology of the housekeeping systems found in the survey

The housekeeping system, as described in Chapter 3 consists of decisions to allocate income to certain expenditures, these decisions taking place at three levels. In Chapter 3 I have introduced certain terms to analyse the allocation process.

At the first level of decision-making, the husband's total net income is allocated partly to collective expenditures - purchases of things which will be consumed or enjoyed by the whole family unit, such as food, fuel and furniture - and partly to the husband's personal "pocket-money". The husband, as the major wage-earner in the household, gives the wife an amount of money known as the "housekeeping allowance", which is intended to cover all, or a large part of the expenditures corresponding to the family's collective needs, and also the personal or private-consumption needs of the wife and children. Some husbands give their wives a housekeeping allowance which is intended to cover only part of these needs, and then they may make additional payments for collective purposes out of money they keep. For example, husbands may pay the mortgage or give children pocket-money. These payments will be referred to in what follows as "payments from husband's retentions". Thus:-

total income of husband (net) = "housekeeping allowance" + husband's retentions

and husband's retentions are then divided into his personal pocket-money and payments which he makes for collective purposes or other people's personal needs.

This allocation system is illustrated in Diagram 1. (Ch.3, p.65)

Whether these collective expenditures from the husband's retentions are substantial in value, or not, is one of the most critical issues in the analysis of housekeeping systems. For convenience, I have included expenditures on behalf of the wife or children as individuals, in the term: "expenditure for collective purposes".<sup>1</sup> It is, therefore, possible to think of the family income as being divided between "collective expenditure" and "husband's pocket money" - the latter being that sum which the husband keeps for expenditure which is made on his own personal behalf, for such things as fares to work, cigarettes, his own clothes and beer. The basis of the classification of housekeeping systems which will be used in what follows, is that the proportion of collective expenditures made out of the husband's retentions will vary.

<sup>1</sup> Without having asked the families to keep accounts of most individual items of expenditure, it is not possible to distinguish most expenditures to meet the personal needs of wife and children, from "collective expenditures". No families in the sample actually separated funds for collective expenditure from funds for the wife's personal use or the children's clothing, so that there may be a relatively high elasticity of substitution between, for example, expenditure on the wife's clothes and expenditure on furniture.

Where collective payments out of husband's retentions are large, the family is defined as having an "allowance" system; that is, the husband gives his wife a housekeeping allowance which does not cover all the major items of collective expenditure. These major items are defined as: rent, rates, mortgage, coal, gas, electricity, hire purchase payments, wife's and children's clothing, and, of course, food. In the "allowance" system, the husband will pay at least one, and more often several, of these major expenses, excluding food, which the wife, in practice, always pays for. These expenses are regarded as "major" because they are absolutely essential to the maintenance of the family's economic functions, or because, in the case of a good many hire purchase commitments, although the goods themselves are not absolutely essential payments cannot be stopped without a considerable material loss. In the "pocket money only" system, the husband retains, broadly speaking, only that part of his wage which is to be used for his personal expenditure. He may pay for a few minor items of collective expenditure, but not for any major ones. The operational definition of the "pocket money only" system used here is in fact that the husband should not be wholly responsible for any major item of collective expenditure, nor should he be responsible for more than three minor items.<sup>2</sup> (Minor items are those starred in Table 1 below, which shows the division of responsibility for various items over the sample as a whole, including the seven control couples who

<sup>2</sup> These are regarded as "minor" either because they take up a very small proportion of the household budget, or because they are more discretionary in nature than the "major" items - they represent expenditure the size of which can be varied fairly easily.



had no children). If the husband were partly responsible for only one major item the couple was classified as having a pocket money only system; but if the husband shared with the wife two or more major items, the couple was classified as having an allowance system. The pocket money only systems include three cases where the husband shared the payment of the rates with the wife but covered no other household expenditure at all out of his retentions; and they included, similarly, three who shared responsibility with their wives for her clothing. These were the only instances of pocket money only systems in which the husband paid for "major" items. The purchase and running costs of a car were counted as the husband's personal expenditure. This was because cars, particularly in working-class families, are usually driven by men, and their primary function is therefore to take the husband to work.<sup>3</sup>

For brevity, I shall refer to the pocket money only housekeeping system as the "P-type" and to the allowance system as the "A-type". The P-type group contains 45 families in the main sample with children, and two amongst the controls. There are 39 A-type couples in the main sample with children, and three amongst the controls. Four families in the main sample, and one amongst the controls, refused to answer the questions about the housekeeping system.

<sup>3</sup> The extent to which they are also used for family outings and so on varies from family to family; but this variation is not associated, in this sample, with the housekeeping system. The evidence on this point is lengthy and tedious, and not of much interest in itself, so I have not included it here.

Table 1

Who pays for different items in the  
household budget

<u>Item</u>	<u>No. of households</u>			
	<u>Husband</u> pays (out of "retentions")	<u>Wife</u> pays (out of house- keeping allowance)	<u>Both</u> pay	<u>No ex- penditure</u>
Cigarettes for wife	2	43	0	44
Cigarettes for husband	48	0	5	36
Rates	21	55	5	7
Mortgage	12	17	6	53
Rent	5	47	0	36
Coal	6	23	0	60
Electricity	14	71	2	1
Gas	12	57	5	15
Children's pocket money	20	27	29	13
Hire purchase payments	11	48	1	29
Wife's clothing	10	67	12	0
Husband's clothing	35	42	12	0
Children's clothing	10	68	11	0
Visits to pubs *	57	1	5	20
Running of car	27	3	5	54
Insurance	13	62	12	2
Repairs, decorating, house improvements	26	40	20	3
Furniture (paid for in cash)	14	37	11	27
Saving, holidays	19	34	31	5
T.V. set rental	6	50	4	29

Notes: This table excludes 5 couples who did not want to answer the relevant questions, and three who had a "pool" system, so that the responsibility for individual items of expenditure is not know. There is, therefore, a total of 89 of whom 84 are couples with children, and five couples with no children.

... notes continued on next  
page

- 1 One couple shared a house with the wife's parents, and so paid no housing expenses or fuel bills but simply "board money". One couple rented a furnished flat, so paid no rates.
- \* Six replies were unclear about this item.

Table 1 shows that some purchases for the husband's personal use are made out of housekeeping money or out of the wife's earnings. Wives are very commonly responsible for buying their husband's clothes: four of them pay for the car, two for their husband's cigarettes and one even for visits to pubs. Consequently, the face value housekeeping allowance is not necessarily all used for expenditure on collective items. A complete formula for estimating the total collective expenditures would therefore be:-

$$\begin{aligned} \text{total collective expenditure} = & \text{housekeeping} \\ & \text{allowance,} \\ & + \text{collective payments} \\ & \text{out of husband's re-} \\ & \text{tentions,} \\ & - \text{purchases on the} \\ & \text{husband's personal} \\ & \text{behalf, made with} \\ & \text{housekeeping money} \end{aligned}$$

Throughout this chapter I shall refer to total collective expenditure, thus estimated, as the "true housekeeping allowance" (THKA for short).

Using the families' own statements about how much they spend on housing expenses and hire purchase, and imputing to them expenditure figures derived from the Family Expenditure Survey for other items, I have estimated the size of the THKA and husband's pocket money for each family in the sample (excluding a few where the information was deficient). The methods used in these calculations are described in Appendix B. An analysis of the variation in the ratio of collective to total expenditure is given in the note at the end of this chapter.

There is, then, a "fund" for collective expenditures, the size and sources of which are determined largely by what were referred to earlier as "first level" decisions, the remainder of the husband's net income then becoming his pocket money. The second level of decision-making is the allocation of each fund to various commodities. Either the husband or the wife may be left with nothing before all the desired expenditures have been made. If so, the wife may appeal to the husband for extra money or vice versa. This final allocation may be called the third level of decision-making in the family budgeting process. In this sample, it does not take place in all families. In some, the house-keeping allowance does vary with the wife's needs of the week; in others, it does not. Appeals by the husband to the wife for more money were mentioned by only three sample families (though if this is an act which saps the husband's pride, it may occur in a greater number of cases than people admit to; in any case, the questionnaire did not specifically ask about this, as it was not in fact a possibility which I had envisaged in designing the schedule).

Before analysing the two main types in more detail, I should like to mention two other systems besides the A-type and P-type which were represented in the sample. Three couples (two with children, one control) said that they pooled all their income, and two couples (one with children, one control) said that the husband handed over all his wages to the wife, who then returned him pocket-money. In the analysis which follows, I have regarded the latter system as a variant of the P-type, and I refer to it as the whole-wage

system. The "pool" system is more difficult to classify, and I have therefore omitted it from the analysis of differences between the A-type and the P-type. The justification for this and further information about these unusual cases is given in Appendix D.

Characteristics of the P-type system and the A-type system, compared

The P-type system is one in which the first-level allocation of income is very simple. In the extreme cases, the husband makes no payments for collective expenditure out of his retentions; he retains only his pocket money. More commonly, there are some collective expenditures made from his retentions, although these are small. Third-level re-allocations are relatively uncommon in the P-type system, as shown in Table 2; so that the system of allocation is altogether very simple, and at the same time fairly rigid.

In the allowance or A-type housekeeping system, not only is the value of the husband's contribution to collective expenditures out of his retentions considerable, but it also happens that adjustments of the housekeeping allowance to meet the wife's needs are more common amongst the A-type couples than amongst the P-type couples. The housekeeping allowance is flexible according to the needs of the wife in 20 (51%) of the A-type cases, but only in 13 (29%) of the P-type cases. (See table below). This difference is significant at the 95% level of confidence.<sup>4</sup>

<sup>4</sup> In giving significance tests both in this chapter and the next, I must emphasise that they should be treated with caution. This is because the sample may well be non-random in respect of some of the variables being examined, as I pointed out in Chapter 4.

Table 2

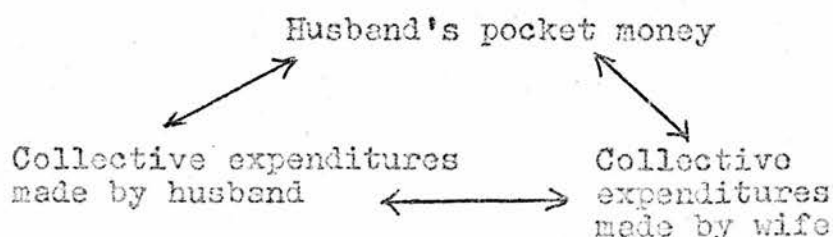
Flexibility of housekeeping allowance

	<u>A-type</u>	<u>P-type</u>	<u>Total</u>
Housekeeping allowance flexible	20	13	33
Housekeeping allowance not flexible	19	32	51
Total	39	45	84

This table excludes the control couples, and those with a "pool" system.

$$Q = 0.44 \quad \chi^2 = 4.39$$

The A-type system, is therefore, a fairly flexible budgeting system. Because a fairly substantial proportion of collective expenditures are made by the husband, he is more involved in financial decision-making than the P-type husband. Whereas the P-type husband's pocket-money is likely to be held quite separately from the housekeeping money, the A-type husband spends, over the course of the week, his pocket-money and the "collective-expenditure" part of his retentions together. A third-level decision to re-allocate money from the husband's pocket-money to collective expenditures, or vice versa, is possible within the husband's retentions. Each of the funds reserved for collective expenditures, that held by the wife and that held by the husband, can receive money from either one of two sources (see diagram below).





In the P-type, on the other hand, the fund for collective expenditures can only receive extra money from the husband's pocket money, and, as stated, this type of reallocation is less common than in the A-type system.

This is a suitable point at which to summarise and comment upon the main characteristics of the two principal housekeeping systems. The P-type is a system which seems to give most of the responsibility of budgeting to the wife. Secondly, it is a rigid one. The husband's pocket money is reserved as a separate fund; there seems to be a quite deliberate division of income into a sum for collective expenditures, and a sum for the husband's personal expenditure. Thirdly, adjustments of the housekeeping allowance to meet the wife's needs are relatively uncommon. P-type informants quite spontaneously referred to the division between husband's and wife's shares when asked how much was their housekeeping allowance: wives made such remarks as: "I get £18 and he keeps £2"; or "he has his bit of pocket money". How much the husband should get did seem to be something of an issue, though not necessarily one which created tension. Just before the survey began, there was an increase in family allowances, which was counter-balanced by a reduction in the child allowances which are set against income tax. Two of the couples interviewed commented on this: to both of them, it appeared as a redistribution of income from the husband to the wife. One man ("Mr. Jamieson" whose family is described in more detail in Appendix C) complained about the fact that this had meant a cut in wages for him - "they gave her extra family allowance and took it off me in tax". The other couple (the "Macdonalds", also described in Appendix c) joked

about this to the interviewer. Mrs. Macdonald said with a laugh: "Since they put up the family allowance he's been paying more in tax - so we've been wondering if he should get a pay rise from me." Her husband laughed too.

By contrast, in the A-type housekeeping system, the opposite characteristics are found:-

- (1) the husband is responsible for paying, out of his retentions, items of considerable importance in the family budget, such as the mortgage or rent, and hire purchase payments.
- (2) since this is so, the fund which constitutes his retentions must be split into payments made on behalf of the whole family, and the husband's personal expenditure. Therefore, if the husband's pay packet falls short of the expected amount one week, he has to decide whether to take less pocket-money or cut back on the payments he makes on behalf of the family. The P-type husband on the other hand, does not have this sort of decision to make, since nearly all of his retentions are for his personal expenditure, and he does not have to decide whether economies should be made in this or collective expenditure.
- (3) An A-type husband is relatively likely to give his wife extra money if she needs it; the housekeeping allowance is flexible to meet the demands of irregular expenses. The pooling system could, in this respect, be re-

garded as an extreme sort of A-type, because in the "pool" system, there is no real separation of funds into housekeeping money and husband's money - "we pool all our money", "both pays get bunged in together", as two informants said. (In all three of the couples in the sample who used this system, the wife was working, so that there were two incomes to be pooled).<sup>5</sup>

In the A-type system, therefore, the family's budgeting activity is shared between the husband and wife, and there appears to be a less rigid distinction between the husband's personal pocket-money and funds to be used for collective purposes, than there is in the P-type system. This may possibly reflect a less individualistic attitude towards consumption on the part of the A-type couples than on the part of the P-type couples, a point which I shall attempt to substantiate in section 3 of this chapter. Possibly the P-type husband sees a need for his "bit of pocket money" as a personal reward for his role as breadwinner,<sup>6</sup> a need for pocket-money to spend on goods which are for his individual benefit; whereas the A-type husband is more involved in making budgeting decisions on behalf of the family as a whole and therefore perhaps derives greater utility from commodities which are collectively consumed and enjoyed than does the P-type husband. This would explain why mainly A-type husbands are, as I shall show later, prepared to work longer hours, since it is much easier for a

<sup>5</sup> For a more detailed description of the "pool" system, see Appendix D.

<sup>6</sup> c.f. Shaw (1954)

family to formulate what might be called consumer ambitions, in terms of a house, a car, and various other durables, then it is for an individual to formulate ambitions in terms of better clothes or more frequent visits to the pub.<sup>7</sup>

The ways in which the housekeeping system may affect the elasticity of the individual's supply of labour are now becoming clearer.

## Section 2

### The cultural correlation of house-keeping systems

The purpose of this section is, firstly, to attempt to identify some cultural and demographic indicators of the major types of housekeeping system, and secondly to relate the housekeeping types found in the Edinburgh sample to sociological literature on family roles and typologies of working-class culture.

In this connection, one should first consider again some of the studies of working class cultures which refer to budgeting habits, and which were discussed in Chapter 3. Bott's "Newbolts", the London families described by Shaw, and the family described by Humphreys in "New Dubliners" provide us with a number of instances of what can now be identified as the P-type housekeeping system, together with the cultures which form its background.

Shaw (op.cit., 1954) lays emphasis on the breadwinner's need for a personal reward for his labour; an attitude which

<sup>7</sup> This is particularly true in a social group in which the ways in which men dress are circumscribed by social convention and by their working conditions, and their leisure activities often squeezed between long hours of overtime working and their home commitments as family men.

is consistent with an age when the working class home had few collectively enjoyed comforts above a minimum standard of decency. The same could be said of the Newbolts; Bott's example of the extreme type of role segregation in the marital situation. Mr. Newbolt leaves his wife an extra pound when she needs it, but she considers this a generous act which could not be expected by some other wives. She deals with the financial affairs of the family entirely. This feature of their relationship is coupled with a segregation of leisure activities and friends; the wife moves in her own circle, and the husband in his; when they go out, they do so more frequently as individuals than as a couple. In Humphreys' study, both a segregated role structure, particularly in domestic tasks, and a low standard of living, are found in conjunction with the system (which I have chosen to regard as an extreme variant of the P-type housekeeping system) - the husband hands over his whole wage packet to his wife and receives pocket money back. From these studies, it is possible to speculate that the P-type system is most commonly a feature of a highly segregated marital role-relationship (to use Bott's term); that is, a separation of husband's and wife's leisure activities, friends, and do-

mestic responsibilities.<sup>8</sup> One may speculate that the A-type system, on the other hand (since it is a more flexible system, in which the husband takes a greater part in the budgeting process) is associated with a less segregated pattern of marital roles, and of greater contact between the husband and wife in their leisure activities, as well as of having more friends in common.

This cultural contrast between the A-type and the P-type systems constitutes the main hypothesis to be investigated in this section. The analysis which follows will be devoted to examining whether the different house-keeping systems can be explained in terms of the families' standard of living and perceptions of the economic situation,

<sup>8</sup> Jennifer Platt (1970) suggests that the relation between role-relationship (essentially a system of expectations, as Bott defines it) and behaviour is not fully understood, and that different aspects of the division of labour between the sexes are not necessarily correlated. I think, however, that the body of literature on "traditional" working-class cultures supports the hypothesis that segregation of economic roles - the wife as manager, the husband as breadwinner - is associated with segregation of leisure activities, acquaintances, and domestic task performance. Possibly Platt's finding that sharing of domestic tasks and sharing of financial decisions are not correlated, arises because she treats individual tasks and decisions as variables, rather than each area as a whole as a variable. It may be necessary to examine task performance and the budgeting system as patterns rather than as sets of individual items, since couples with a given type of budgeting system may be more likely to vary in who does the washing-up than in the actual number of domestic tasks shared by the husband. Alternatively, it may be that the traditional life style with its "segregated" role-relationship is associated with a greater rigidity of social norms and role-relationships than the "affluent" life style of Platt's sample. If so, one might expect correlation between different aspects of "segregatedness" in a traditional culture, but not correlation between different aspects of "jointness" in an affluent culture.



in terms of the degree of segregation of husbands' and wives' leisure activities and friends, and in terms of their pattern of consumption.<sup>9</sup>

The relationship of standard of living and occupation to the housekeeping system

A hypothesis which seems plausible in the light of the existing literature on housekeeping systems is that the P-type housekeeping system is the natural result of a low standard of living, and perhaps a relic of the pre-war period of high unemployment and more limited national insurance provision. Such economic circumstances would have the following implications for the family's attitude to consumption:-

- (1) that the breadwinner has a specially important function in the family, which necessitates a special reward; his function is elevated, because there is felt a continual threat that it may be impaired by illness or unemployment, or even by the husband's desertion.
- (2) "luxury goods", at a low standard of living, will be of an individually consumed, rather than a collectively consumed, nature. They will be things such as beer, tobacco, and clothing, rather than domestic electrical appliances or a house of the family's own. Hence the breadwinner's reward for the performance of his particularly important function

<sup>9</sup> On the other hand, Goldthorpe and Lockwood (1969, p. 125) say that 56% of their white collar sample have "segregated" financial arrangements. They do not, however, define "segregated", and this may not be the same thing as the P-type system.

must be in terms of a fund specially reserved for his individual consumption.<sup>10</sup> The family budget is arranged so that this fund is not frequently at risk of being broken into by collective expenditure. If the husband gives his wife extra housekeeping money, he therefore does it as a favour, not as a collective obligation which is to be taken for granted.<sup>11</sup>

Several indicators show that the P-type couples display greater evidence of financial pressure, and are less optimistic in their perception of the economic situation. The P-type couples do have a lower income than the A-type couples; the average take-home pay of the husbands in the P-type group is £19.20, and in the A-type group £21.40. When asked: "Do you think people in Edinburgh are better off than they were two or three years ago?" 39 members of the sample said no, of whom 29 were P-type couples.<sup>12</sup>

(See Table 3 below; this difference between A-type and P-

<sup>10</sup> c.f. also suggestions that the husband, in the 1940's and earlier, received the lion's share of the family's good (Young, B.J.S., 1952).

<sup>11</sup> Contrast, in the Edinburgh sample, the following remarks, in response to the question: "What do you do if the housekeeping money runs out before the end of the week?" The husband of a P-type couple said "she shouts help". The husband of a couple who had an A-type system said: "It's very flexible - we work it out together".

<sup>12</sup> At the time of the survey, several large firms in the city were closing down and moving to the development area further west. These included one of the firms whose workers were interviewed, and one firm which did not take part in the survey for this reason. There was a good deal of public agitation about the moves, which posed the threat of considerable local unemployment.

type couples is significant at the 99.9% level of confidence). Also, fewer of the P-type couples expected a pay rise in the next year.

Table 3

Housekeeping system and opinion  
of the economic situation

	<u>A-type</u>	<u>P-type</u>	<u>Total</u>
Thinks standard of living has risen	25	11	36
Thinks it has not risen	10	29	39
	<hr/>	<hr/>	<hr/>
TOTAL:	35	40	75

Note: This table includes control couples 19 cases where the husband and wife disagreed are excluded. Only 3 couples said they did not know.  $\chi^2 = 14.43 : Q = 0.75$

The A-type couples on the whole had better job prospects. More of them were skilled workers,<sup>13</sup> (as shown in the table below) and the skilled workers in the sample naturally had higher basic wage rates than the unskilled. Basic weekly rates for the unskilled men in the sample ranged from £12 to £17 (excluding shift-working allowances), and rates for the skilled men from £16 to £23. The earning capacity of the A-type wives was also higher; fourteen of the A-type wives, or 36%, had at some time had a clerical or nursing job, either before or since their marriage, but only 9 (20%) of the P-type wives. ( $Q = 0.45$ : this association is not, however, significant).

<sup>13</sup> i.e. those who had served apprenticeships or their equivalent. The gasfitters' training, which takes two or three years, was counted as an apprenticeship. Train drivers were counted as skilled, but not bus drivers.

Table 4Housekeeping system and skill  
level of husband's occupation

	<u>Skilled</u>	<u>Unskilled</u>	<u>Total</u>
A-type	26	16	42
P-type	12	35	47
Total	38	51	89

Note: This table includes control couples.

$$Q = 0.66 \chi^2 = 12.51$$

Table 5Occupations of informants' fathers  
by housekeeping system of informants

	<u>A-type</u>	<u>P-type</u>	<u>Total</u>
(a) <u>Husbands' fathers:</u>			
Skilled or ran own business	17	15	32
Unskilled	21	21	42
Traditional occupation not classifiable by skill (farming, crofting, fishing, mining)	0	8	8
	—	—	—
Total where father's occupation known (including control couples)	38	44	82
Number where father's occupation unknown	3	4	7
(b) <u>Wives' fathers:</u>			
Skilled or ran own business	19	10	29
Unskilled	16	29	45
Traditional occupation, defined as in (a)	2	7	9
	—	—	—
Total where father's occupation known (including control couples)	37	46	83
Number where father's occupation unknown	2	4	6

It is possible that the occupational status of the wife's family or origin may have had some influence on couples' choice or development of a housekeeping system. A much larger proportion of A-type wives than of P-type wives had fathers who were skilled workers, foremen, or ran their own businesses (see table 5).

It is interesting, too, that a much larger proportion of people whose parents were in traditional, primary-sector occupations, had a P-type system. Seven of the P-type men in the sample had a father or father-in-law who was a miner, but only two of the A-type men had. This finding fits in with Dennis, Henriques and Slaughter's comments (1962) on the budgeting system amongst mining families - a rigid system which leaves most of the responsibility for household purchases to the wife, running in parallel with a generally rigid division of labour between the sexes.

That eight P-type men's fathers or fathers-in-law were farm workers, crofters or fishermen, but no A-type men's relatives were, suggests that the P-type may in some cases be associated with a distinctively traditional way of life; that it could go together with a relatively low standard of living and a traditional, rigid, pattern of sex-roles.

The relationship of marital roles and leisure activities to the housekeeping system

The hypothesis that P-type couples have a more differentiated marital role pattern in general, as well as their budgeting system, is neither supported nor contradicted by the survey data. There may be sex-role differences

between A-type and P-type which are not reflected in the answers about leisure activities; but these answers are the only guide I have to the general role pattern. There could be differences, for example, in the division of domestic tasks, which the questionnaire did not investigate.

Joint leisure activities such as husband and wife going to the pictures or to a club or pub together, or going out in the country, are no more common amongst the A-type couples than amongst the P-type couples. A-type husbands do not mention home-centred leisure activities, such as "do-it-yourself" work, more often than do P-type husbands.<sup>14</sup> Only seven of the P-type couples, and six of the A-type couples, could be said to have a pattern of acquaintances in which the wife's friends were a quite different set from the husband's friends. Entertaining friends (as distinct from relations) at home was reported by eight A-type couples and nine P-type couples. However, it is probably true that a much more extensive study of these issues would be required, before one could say definitely whether or not the P-type husbands and wives have a relatively segregated marital role-relationship. It has been suggested to me that the questions I asked about leisure were insufficiently thorough since they did not ask about the frequency of specified activities.

<sup>14</sup> Nor do they mention gardening more frequently. I do not think this should be regarded as a home-centred activity, however, since most of the sample families lived in flats, and if the men gardened, it meant cultivating allotments.



Consumption patterns and the house-keeping system

Several indicators do suggest, however, that the P-type housekeeping system is associated with the economic individualism of husbands and wives which the "Ashton" study and others implicitly attribute to traditional working-class cultures.

For example, three P-type men, but no A-type ones, said that if they had a pay rise of £2 per week, they would keep it for their personal spending. In telling the interviewer what their wages were, only two out of 39 (5%) of the A-type cases gave their basic wage, but nine out of 45 (20%) of the P-type cases did. Two out of the 39 of the A-type men under-stated their pay without the amount being exactly equal to their basic wage, but six out of 45 (14%) of the P-type men did this.<sup>15</sup> Either type of under-statement of total pay may suggest a desire to conceal information from the wife, although those who gave their basic pay may alternatively have been trying to point out to the interviewer how low it was, or may have simply misunderstood the question. (However, the latter is not very likely, as this question followed a set of questions to determine how much overtime the men did).

I have already mentioned that the P-type couples showed less flexibility in the housekeeping allowance. P-type wives are, perhaps because of this, more likely to

<sup>15</sup> The men were asked to say, "how much you earn each week, after tax and national insurance deductions". It was possible to estimate what their wages actually were from data about wage rates given by employers, and compare this estimate with what they said. (The full results of this comparison are dealt with more fully in Appendix A).

work than A-type wives even if they have the same income. Taking the income group of \$17-20 (husband's take-home pay) so as to control for income,<sup>16</sup> it turns out that two out of 11 wives work in the A-type families in this income group, whereas nine out of 21 of the P-type wives in this income group work (18% versus 43%;  $Q=0.54$ ). If more P-type than A-type wives work, at the same level of husband's income, it is possible that P-type wives feel a greater need to have some money of their own, to have financial independence.

Variations in the sample's ownership of durable goods may also be used as an indicator of economic "individualism". It is possible to define goods which represent "collective" consumption, i.e. those which are enjoyed by all the family, and those which represent labour-saving devices for the benefit of the housewife. The collective consumption category obviously includes a house of the family's own; and amongst the list of durable goods on which the questionnaire provides information, it includes fitted carpets, a telephone, a record player, a tape recorder, and a fridge. It also includes a television set, a three-piece suite, electric or gas fires, and a matching bedroom suite; but since nearly all the households in the sample had these things, the information is not of analytical value. In fact, the only goods in the list which are entirely for the benefit of the housewife are a washing machine, spin drier, vacuum cleaner and hair drier; the rest are "collectively"

<sup>16</sup> This is the largest income range in which the A-type and P-type groups overlap extensively, since, as I have already pointed out, there are income differences between the two groups.

enjoyed. Even a sewing machine may perhaps be regarded as something for the collective benefit, in so far as it saves the whole family money on clothing and curtains. In general, therefore, the number of durable goods a family has, compared to others with the same income, provides us with one possible indicator of the family's valuation of collective as distinct from private consumption (provided the goods which are merely labour-saving devices are excluded).<sup>17</sup>

Taking again the income group in which the husband's take home pay is at least £17 but under £20 - the only range in which the A-type and P-type groups overlap to any great extent (since, as I have pointed out, there are income differences between the two groups), it appears that A-type couples within this income group own more durable goods than do P-type couples.

The A-type couples in this income group owned an average of 4.33 "collectively enjoyed" durables, other than

<sup>17</sup> Of course, durables are not the only collectively consumed commodities, but I think one must consider only those collectively consumed goods which might be called discretionary purchases. For example, food is a collectively consumed commodity, but the greater part of food expenditure is common to all families, whatever their taste; the total value of food expenditure does not vary much even with income. (In fact, the proportion of consumers' expenditure going on food, at constant prices, has fallen from 25.4% in 1959 to 21.7% in 1969. Durable goods, on the other hand, can be regarded as consumer ambitions on the fringe of the budget; the demand for such commodities generally has a high income-elasticity, and the percentage of consumers' expenditure going on durables excluding houses rose from 11.9% in 1959 to 14.7% in 1969, at constant prices (see National Income and Expenditure, 1970, table 23).

houses, whilst the P-type couples own an average of only 3.42 such items. Out of the 11 A-type couples in this group, six have cars, but only four out of the 21 P-type couples do ( $Q=0.54$ ). Also in this income group, six out of the 11 A-type couples have their own dwellings,<sup>18</sup> but only three out of the 21 P-type couples do ( $Q=0.75$ ).<sup>19</sup> Moreover, three of the A-type couples own dwellings of four rooms, or more, but the P-type owner-occupiers all live in three rooms or less.<sup>20</sup>

The sample were also asked what durable goods they would like to own. The same list was used as for the question about what goods they did own. In the sample as a whole, the proportion of households expressing a desire for three or more durables of the "collectively used" category was considerably larger amongst the A-type group than amongst the P-type group. Sixteen out of 39

<sup>18</sup> What the English call a "flat" the Scots call a "house" and by "flat" Scots refer to what the English would call a "floor". Hence I have used the term "dwelling" to avoid ambiguity.

<sup>19</sup> In the sample as a whole, 20 out of 39 of the A-type couples are owner-occupiers, compared to only 12 out of the 45 P-type couples ( $Q=0.49$ ).

<sup>20</sup> Counting the kitchen-living room of tenement flats as one room. (The distinction between dwellings of four or five rooms, and those of one, two or three rooms, is an important one, since in the Edinburgh tenements nearly all dwellings of less than four rooms, counting the kitchen-living room, are occupied by working-class people, whereas larger tenement dwellings are found in districts of a mixed social character, and many of them are occupied by middle-class people. One one of the couples referred to above - an A-type couple - had a two-storey house as opposed to a tenement dwelling). Owner-occupiers of smaller tenement flats (2 or 3 rooms) have housing expenses barely different from those of council tenants. If paying a mortgage, such owners had average expenses of 46s; if not, 16s. (All owners of large flats and houses paid mortgages). Council tenants paid an average rent of 46s. All the owner-occupiers of four rooms, or more, on the other hand, had housing expenses of over £3, ranging up to £6.

of the A-type couples, but only 9 out of 45 of the P-type couples in the main sample, listed three or more "collective" durable goods on the list that they wanted to have. This difference gives a Q-value of 0.47.

Since the question was not directed at their intention or ability to purchase the goods mentioned, this finding is not likely to be due to the differences of income between the A-type and the P-type groups. In fact, on the assumption that those with least well-equipped homes and lowest incomes are most likely to express a desire for things they want, one would have expected the P-type couples to have the largest lists of wants. So this finding is the opposite of what income differences between A-type and P-type couples would lead one to expect.

It seems to reflect a greater degree of what might be called "consumer ambition" on the part of the A-type couples, and/or that these couples are more "collectively oriented" in their economic behaviour. Could it be that the P-type couples too have extensive consumer ambitions, but that these are individualistic ambitions, that is, they relate to personal rather than collective expenditure? This seems most unlikely, for the simple reason that the income-elasticity of demand for commodities that form the personal expenditure of family members (clothes, alcohol, fares to work, lunches at work, and cigarettes) has been found to be much lower, in macro-economic data, than the demand for durable goods which are generally thought to have a relatively large income-elasticity of demand.

The association between such consumer ambitions and collective orientation in the A-type group on the one hand,



and individualistic orientation with relatively little consumer ambition in the P-type group on the other hand, will be seen to have considerable importance in the next chapter, when I deal with the cultural correlates of the propensity to work.

The A-type couples appear, in general, to be more interested in the home than the P-type couples, as an object of expenditure, and as the rationale of work effort. This implies that the A-type pattern of expenditure is either more wife-oriented or more oriented towards a joint pattern of consumer interests and a joint life style based on the home. This should be contrasted with the individualistic patterns of discretionary expenditure on beer, tobacco and clothes, which I have referred to earlier as being associated with a lower standard of living and a "traditional" working-class pattern of life.

Although it is the wife in the P-type system who appears on the surface of things to have most control over budgeting and consumption, it is the A-type system which places more emphasis on the wife's interests. As Willmott (1963) has pointed out, a nice home well equipped and furnished, perhaps means more to her than to the husband, since she spends more time at home, and her principal role of housewife is centred around the home. In the Edinburgh sample, it is noticeable that even where husbands did frequently engage in some leisure pursuit outside the home, the wives did not often share these activities.<sup>21</sup> Twenty-nine men

<sup>21</sup> However, working wives were more likely to go to the pub with their husbands: of the 13 wives who did go, 10 were working.



went to pubs, but only 13 took their wives. Twenty-four men went to football matches, or played football, golf or darts; but only four wives took part in any sporting activity. Other external activities (church work, bingo, clubs and organisations of various kinds, and going to the cinema) were pursued equally by men and women, though by a very small number of either. This emphasises that the wife's role, whether she works or not, is a home-centred one. More emphasis is put upon "home-centred" consumption by the A-type households, so that the wife's apparently smaller role in budgeting conceals the true nature of the family's consumption pattern.

#### Summary of demographic and social determinants of the housekeeping system

It is now possible to draw together a number of demographic and social correlates or indicators of the two housekeeping systems. For this purpose, I drew up a variable tree of the sort described in Chapter 4. This tree is shown as Fig.6 below. It shows which is the variable most strongly associated with housekeeping system, first within the sample as a whole, then within each subgroup. All of the variables have already been mentioned except the age of children. Owing to the fact that the interviewers objected to a question which would have determined the date of marriage of informants (on the grounds that this could reveal illegitimate children, be embarrassing, and damage rapport) the only available indicator of the duration of marriage (or in fact of the age of the parents) is the age of their children. Families whose eldest child is under 8 are particularly likely to

operate an A-type system. It also appears that families whose eldest child is over 14, unless they are owners of a large flat or a house, are highly likely to have the P-type system. (The criterion values for ages of children were chosen because they were the values which produced the highest Q-values). The association is larger once the owner-occupiers of four rooms or more are removed, than it is in the sample as a whole. ( $Q=0.75$  against  $Q=0.48$ ) because several of the predominantly A-type owner-occupiers are older couples.

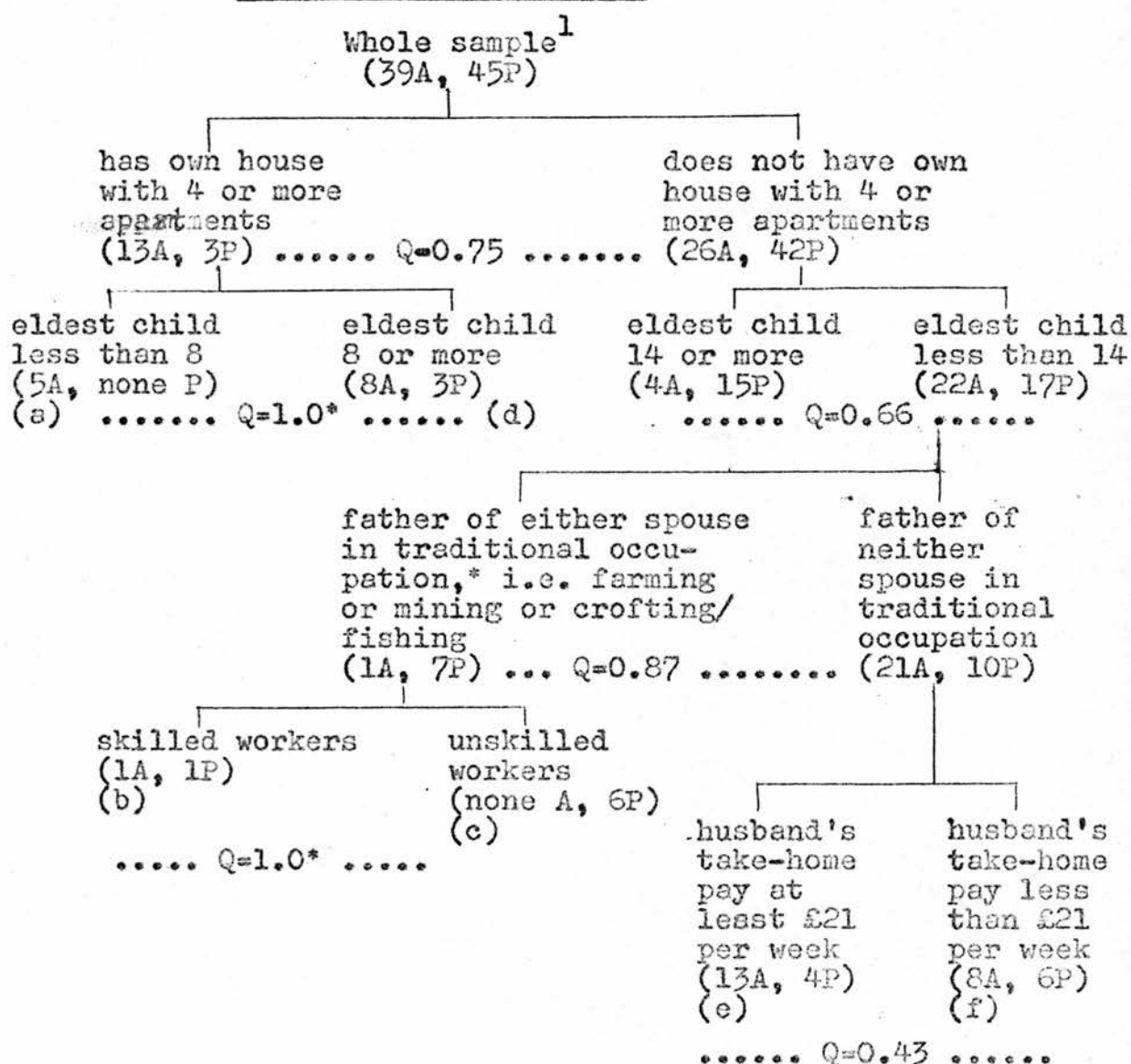
There are, then a number of indicators which, on the basis of this survey, may be useful to predict the probable frequency of existence of the P-type system in the British population at large or in particular sections of it:-<sup>22</sup>

- (1) the P-type system is associated with tenancy rather than owner-occupancy;
- (2) the older the couple, or the longer the duration of their marriage (on the basis of this data I am not sure which) the more likely they are to employ the P-type system;

<sup>22</sup> Bearing in mind that there may be regional variations in housekeeping systems which could entail that in a national sample, new systems would be discovered, or the cultural correlates of the A-type and P-type systems might be different from their correlates in Edinburgh. These, of course, are points which need fuller investigation.

Fig. 6

Variable Tree for the Determinants of  
the Housekeeping System



Notes

1. Excluding control couples and those with a "pool" system as well as those whose housekeeping system is not known.
2. At the end of the branch (f), no further explanatory variable could be found. At the ends of the branches (a), (b) and (c), further sub-division would have been impossible, whilst at (d) and (e) the number of "P" cases remaining is so small that any further sub-division would have been meaningless. At (g) this applies to the 4 "A" cases.
3. This tree covers all the non-control couples whose house-keeping system was known, excluding the two who had a "pool" system.
4. Where the Q-value is marked with an asterisk, the difference between the two categories is not significant. The chi-square test was used where all four expected frequencies were at least five: otherwise Fisher's exact test was used. Where there is no asterisk the variable concerned is significantly associated with the type of housekeeping system at least at the 95% level of confidence.

- (3) the P-type system is associated with traditional occupations such as mining, fishing and agriculture. In this sample, taken from an urban area with no mining industry, these are only identified as occupations of informants' parents.<sup>23</sup>
- (4) the P-type system is associated with low incomes and unskilled occupations of husbands. (The skill and income variables are closely related, since the unskilled men in the sample had lower basic wage rates than the skilled).

All four of these indicators, together with the phenomenon of economic individualism within the family, seem to confirm the earlier hypothesis that the P-type system is an aspect of a traditional working-class life style, and therefore probably as aspect of a segregated marital role relationship.

The traditional life style is associated with low standards of living; this is of course why several writers have chosen the term "affluent worker" to refer to the opposing ideal type of non-traditional working-class culture. The traditional life style tends to be broken down by removal to new housing estates (c.f. Willmott and Young; "Family and Kinship in East London", 1957), by high wages, and by the consequent expansion of consumer horizons (c.f.

<sup>23</sup> One must beware, however, of the possibility of a spurious association here. Migrants to a city from rural and mining communities are perhaps more likely than established city-dwellers to take up unskilled jobs, and, as we have seen, there is a strong association between having an unskilled job and having a P-type house-keeping system. The number of such migrants in this sample is so small that it is not possible to control for the skill variable in examining the relationship between housekeeping system and parents' occupation.

Zweig; "The Worker in the Affluent Society", 1964). By the same token it is not surprising to find that the P-type system - if indeed an aspect of the traditional life style - is most common amongst the unskilled occupational groups which, in this sample, are not particularly well paid. All the unskilled workers in the sample had basic wage rates of less than £18 pwr week, and if those brewery workers who did compulsory overtime are omitted, their basic wages were all less than £15 per week. Only the rubber factory workers had an incentive scheme, which together with shift allowances raised their average earnings for a forty-hour week to about £19. Thus the unskilled and semi-skilled workers in this particular sample did not include any highly paid assembly line workers such as Zweig and Goldthorpe et al. have studied. For this reason, it may be that the association between skill level itself and housekeeping system is spurious and that the real relationship is with income rather than type of occupation.

The traditional life style is associated with tenancy rather than owner-occupancy; owner-occupancy is almost unknown in most of the samples associated with studies of traditional cultures (except the "respectables" of Banbury described by Margaret Stacey (1960), whereas in Goldthorpe and Lockwood's, and in Zweig's samples it is common. The "affluent" life style has been identified in these two studies in relatively modern industries, using assembly line techniques, whereas the traditional life style has been identified mainly amongst workers in long-established industries, for example dock-work (c.f. Keer, 1958, Willmott and Young, 1957), the traditional craft industries of the



East End of London (Willmott and Young, 1957) and mining (Dennis et al, 1962). This suggests that the "traditional" culture is passing as working conditions change, as well as because of rising living standards so that it is not surprising to find that the P-type system, which may be a part of this life style, should be more common amongst older workers.

The A-type system is associated with the opposites of these four characteristics: it goes together with owner-occupancy, skilled occupations of husbands, younger couples, and hardly any of the A-type informants' parents worked in primary-sector industries. The specific characteristics of the economic behaviour associated with the A-type system, what might be called "collectivism" as opposed to "individualism", are defined and examined more thoroughly in the next section.

The greater frequency of the P-type system amongst older couples deserves further consideration. It can be explained by reference to the fact that the traditional life style may be a passing phenomenon, which is therefore less common amongst younger couples. But this explanation needs to assume that people develop a housekeeping system early in their marriage and stick to it, so that the date at which they marry influences the sort of system they adopt. If this is so, one would expect that the A-type system may become more common, and the P-type system less common, as the traditional life style becomes less common. On the other hand, there is no evidence from the survey data for or against the assumption that the housekeeping system remains broadly the same throughout married life.



Another possibility is that couples change from one housekeeping system to another in the course of their marriage. On the basis of a cross-section study one can only speculate about this. It could be that the A-type system is a feature of the period early in marriage when people are accumulating possessions, such as furniture, and sometimes a house or a car. Such purchases require joint decisions and joint saving, or at least jointly planned saving. At this period, husband and wife may feel that joint consultation is necessary, and their economic roles may be unstable and relatively undifferentiated. They may still be at the stage of working out their budgeting arrangements and a relatively flexible housekeeping system may arise. Later, their roles may become stabilised and more highly differentiated and less consultation will be required as major purchases or durable goods become less frequent. The wife may also become more experienced in dealing with irregular payments, so that the husband will less frequently be called upon to "give extra". Moreover, as the children get older, the wife is very likely to take a job, and then she may have enough from her own earnings to pay for her clothes, new household equipment and furnishings, and to keep money in reserve. Where the wife works, it may be less likely that the husband will take responsibility for items of collective expenditure. Thus, it is possible that the P-type system could be a feature of later stages of the life cycle, and that some of the A-type couples in the sample may change to that system sooner or later. (However, one

point against this hypothesis is that there is no association between the wife's employment and the P-type in the sample as a whole, although there is in the middle income group where the husband's take-home pay is £17-20 per week, as already stated).

To sum up, I have not been able to establish or disprove any connection between the housekeeping system and the marital role relationship, but the hypothesis that the P-type system is associated with a low standard of living, and with a way of working-class life which is becoming less common as living standards rise, does seem to be supported by the survey data. The P-type system, moreover, may be associated with a more individualistic pattern of consumption than the A-type system. This particular contrast between the two systems will now be examined in greater detail.

### Section 3

#### The housekeeping system and other aspects of the family's economic behaviour

The main hypothesis to be examined in this section is that the A-type couples have a more "collectivist" orientation as consumers than the P-type couples, by contrast with the latter's "individualism" about which I have already presented some evidence in Section 2. I shall now amplify the evidence that the A-type couples formulate ambitions in terms of collective consumption, and show that they fulfil these ambitions by means of joint saving. To this end, the A-type husbands work harder, at least amongst the skilled workers in the sample. They also are more likely to use their overtime earnings for collective purposes.

The use of overtime earnings

In Chapter 3, I made the point that according to previous studies, overtime earnings are treated differently in the household budgeting system from basic earnings. Overtime earnings may be distinguished from the basic wage, and all or most of the former kept by the husband for personal expenditure. Table 7 shows that P-type husbands are less likely than A-type husbands to put any of their overtime money to household purposes, that is, to include anything over their basic wage in the THKA. ( $Q=0.53 : \chi^2 = 4.84$ , so that this relationship is significant at the 95% level of confidence).

Table 7  
Relationship between THKA<sup>24</sup>  
and basic wage

	<u>THKA exceeds</u> <u>basic wage</u>	<u>THKA the same</u> <u>or smaller than</u> <u>basic wage</u>	<u>Total</u>
A-type	15	10	25
P-type	11	24	35
Total	26	34	60

This table includes all of those men with children for whom THKA, housekeeping system, and basic wage are known.

Nearly two-thirds of the P-type husbands do not include any of their overtime money in their THKA, whilst over half the A-type husbands do include some of their overtime money in their contribution to collective expenses. Does this greater personal reward for overtime work act as an incentive to the P-type husbands to do more overtime than the A-type husbands?

<sup>24</sup> For a definition of THKA see page 136 of this Chapter.

Table 8 shows that 56.5% of the P-type men do at least as much overtime as the median for the sample, but 62.5% of the A-type men do so. In fact, when one controls for skill<sup>25</sup> which is the largest single influence on overtime, it is found that amongst the skilled workers, A-type husbands work longer hours than P-type husbands.

Table 8  
Housekeeping system and  
overtime hours

Overtime hours	A-type	P-type	Total
Less than 10	12	17	29
10 or more	20	22	42
Total	32	39	71

Note: This table excludes control couples and those men with children who cannot choose how much overtime they do. 10.50 hours is the median amount of overtime for all those men in the sample who can choose how much overtime they do.

The P-type husbands, then, do not apparently derive any personal incentive from the fact that their housekeeping system allows them to keep more of their marginal (i.e. overtime) earnings for themselves. If anything, they work less overtime than the A-type husbands. There are two possible explanations of this: one is that the concept of personal incentives arising from potential gains to the fund for purely personal spending, is not relevant here; that is, that the breadwinner does not consider the purely individual benefits which will be his re-

<sup>25</sup> The difference is much larger when one controls for skill: the A-type husbands appear in general not to work much more overtime than the P-type husbands because more of them are skilled and skilled workers do less overtime than unskilled workers (see next chapter).

ward, when determining his work effort. The other is that such individual benefits are subject to a strong negative income effect - that there is an early satiation point for the commodities and services the husband buys with his pocket money, like fares to work, lunches, cigarettes, and even beer, since this last item is likely to be collectively consumed with his friends, and the amount consumed may be largely determined by social conventions of the group.<sup>26</sup>

We have seen that P-type men are more likely than A-type men to keep overtime earnings as personal pocket-money. Should this retention of overtime earnings be interpreted as the reservation of a special personal reward for the breadwinner, as Shaw suggests to be a feature of the budgeting system in some families? (See passage quoted from Shaw in Chapter 3). This is possible but in view of the data presented earlier about the P-type couples' feeling of pessimism about their economic prospects, it may well be that the retention of overtime earnings is simply a way of ensuring that the wife does not count on overtime money in establishing the level of her weekly expenditure. This may be necessary if, as I have suggested, the P-type system emerges from a relatively low standard of living and the relatively high degree of economic insecurity which the older and unskilled members of the sample may have experienced in the past.

<sup>26</sup> One man's remark is particularly interesting in this context; though it may not illustrate a general practise: "The one who's done the most overtime buys the round".

Savings behaviour

I have already shown that A-type couples own more durable goods of a "collectively enjoyed" type, and are also more frequently owner-occupiers than P-type couples at the same income level. I also stated that, despite the fact that the A-type couples have more durable goods already, they are more likely to express a desire to possess further durable goods.

These differences in the extent of collectively oriented consumer ambitions, and, if one can use such a crude phrase, for want of a better one, consumer achievement, are reflected in the savings practices of A-type and P-type couples. Just as the A-type husband is more likely than the P-type husband to be involved in major second level budgeting decisions, he is also more likely to be involved in saving, as shown in Table 9 below.

Table 9  
Saving responsibility and  
housekeeping system

	<u>A-type</u>	<u>P-type</u>	<u>Total</u>
Joint responsibility for saving	9	2	11
Husband has responsibility for saving	7	7	14
Wife has responsibility for saving	8	25	33
Couple do not save	7	7	14
Total	31	41	72

Notes:

The Q-value for "joint" saving versus all other categories except "no saving" is 0.81 :  $\chi^2 = 9.15$ , so that the association is significant at the 99.5% level of confidence.

This table includes controls.

... notes continue on next  
sheet



Unfortunately, at the time of revising the questionnaire, very few of the couples already interviewed had bank accounts so the relevant question was dropped from the revised schedule. This is why the information is only available for 72 people.

Out of 24 A-type couples who manage to save, 16 (67%) give the job of saving at least partly to the husband, whereas out of 34 P-type couples who manage to save, only 9 (26%) give the husband some part of the task. ( $Q=0.70$ ) The same table shows that joint saving by both husband and wife together is much more common amongst the A-type couples ( $Q=0.81$ ). Moreover, although it is not more common for A-type couples to have bank accounts, joint accounts are slightly more frequent amongst A-type couples, as shown in Table 10. ( $Q=0.58$ , but this difference is not significant :  $\chi^2 = 3.32$ ).

Table 10  
Bank accounts and the  
housekeeping system

	<u>A-type</u>	<u>P-type</u>	<u>Total</u>
Husband and wife have separate accounts	2	1	3
Joint account	18	7	25
Husband has account	6	9	15
No account	11	18	29
Total	37	35	72

Note:

This table includes controls.  
See also note to Table 9.

Unfortunately it has not been possible to analyse the amounts couples saved with reference to possible differences between housekeeping systems, owing to the fact that many couples in the sample made no clear distinction between gross and net saving. (The data on savings behaviour are

dealt with at greater length in Chapter 7). I am not, therefore, able to say whether A-type couples actually save more than P-type couples. However, the fact that more A-type couples were owner-occupiers than P-type couples at the same income level, suggests that the A-type couples did save more. Tenement flats in Edinburgh are sufficiently cheap that most couples in the sample, even the unskilled, could have raised an adequate mortgage to buy a four-apartment flat at the time of the survey (assuming that their building society had no doubts about the security of their employment). The problem for working class house-purchasers is rather the difficulty of saving sufficient money for the deposit - several hundred pounds in the case of tenement flats, which can generally be mortgaged only for 75% of their value, owing to their age. To save several hundred pounds represents a considerable effort for working-class couples. That so many of the A-type couples managed to do this, seems to be evidence of the strong motivation which they had towards saving for major collective purchases.

Thus the structure of the A-type budget appears to favour large purchases involving joint decisions by husband and wife, for three reasons:-

- (1) allocation of funds to the housekeeping money and the husband's pocket money is fairly flexible.
- (2) the larger amount retained by the husband, and his responsibility for collective purchases, funds for which are not rigidly

separated from his personal pocket money, facilitates his saving for, and purchase of, large items for the family's benefit.

- (3) saving by both husband and wife, as a collective effort, is more common amongst the A-type than the P-type group. (c.f. A-type couples' statements such as "we save together", "we put what's left over into the bank". Corresponding statements by P-type wives were: "I keep a bit aside for bills, each week", or "I like to have something in hand for emergencies", or "I save for things in jars". (The sample were asked: "Who has the job of saving?" and "What do you do with the money you save up?")

#### Home ownership and its relation to family life style

The implications of the more frequent owner-occupancy amongst the A-type couples are worth discussing.

The choice of buying their own dwellings was not necessarily an obvious thing for the sample couples to do if they had enough money. Only one couple had, and few could have afforded, a two-storey house of the English type. Small two-storey houses and bungalows are rare in Edinburgh; the typical form of working class housing is a nineteenth-century tenement flat or a newer council flat. The typical council flat has a kitchen sitting room, two bedrooms and bathroom; so has the four-apartment tenement flat (the best type of dwelling which the owner-occupiers in the sample generally had).<sup>27</sup> But the tenement flat is

<sup>27</sup> Some owned two or three-apartment flats.

older, its rooms are high and draughty, the plumbing often inefficient and old-fashioned; and, unlike some council flats, it has no central heating. Thus, in terms of physical facilities, there is little to choose between the council flat and the tenement flat; if anything, the practical advantages are in favour of the former. Yet the tenement flat is more expensive. The average of weekly housing expenses paid by owner-occupiers of four rooms or more was £3.60, and by council tenants £2.15. What, then, was the attraction of owner-occupancy to these families? Partly, perhaps, that they could decide to buy a flat as soon as they had the money; but the waiting period to obtain a council flat was not within a family's control. But also, surely, it was a matter of taste. Moreover, investment in a house as a form of saving should be seen, perhaps, as an additional aspect of the emphasis which the A-type couples place on joint saving.

The tenement districts offered a city-centre life style, with shops, pubs, work and entertainment close at hand. In occupational composition, the better tenement districts, where the four-apartment flats are mainly to be found, are very heterogeneous. The architecture of the tenement building, and the life that goes on within it, has a very distinct character. Perhaps, too, people choose owner-occupancy because it offers greater opportunity for control over one's living conditions; there is more freedom to alter one's dwelling to suit one's needs, and one can sell one's house and move houses when one pleases, whereas to change council houses is more difficult to arrange and only possible by the grace of the local authority.

I do not think, therefore, that the greater frequency of owner-occupancy amongst A-type couples is purely due to the fact that they have higher incomes than P-type couples; rather, it is a direct correlate of the housekeeping system, or of the life-style which underlies the housekeeping system. This point will be further considered in section 4 of this chapter.

Is the A-type system a natural consequence of owner-occupancy? According to my method of classifying housekeeping systems, a couple of whom the husband paid the mortgage would automatically be classified as A-type, since this is a major expense. Thus, if husbands usually paid mortgages, most owner-occupiers would be A-type by definition. However (referring to Table 1 again), 18 wives and only 12 husbands paid the mortgage in this sample, and in six households it was a shared responsibility. Thus, although there is much greater participation by husbands in the payment of mortgages than in the payment of rent, there is not a priori reason to expect owner-occupiers to have an A-type system.

Rather, the A-type housekeeping system and owner-occupancy both seem to be features of a particular life style which places emphasis on a high standard of "home-centred" or "collective" consumption. Although it appears that there are no non-economic cultural differences between the A-type and the P-type which can be detected from the survey data,<sup>28</sup> there are important differences between the

<sup>28</sup> If differences in the allocation of domestic tasks do exist, they cannot be detected here because the questionnaire did not ask about this.

owner-occupiers of four or more rooms and the others, in the occupations of the couples' friends and in the education of their children. Owner-occupancy is thus not a purely economic aspect of behaviour; it involves more than simply consumer choice. These differences appear to be independent of housekeeping type, but since owner-occupancy of large flats seems in general to be so strongly associated with the A-type system, this independence may appear by chance, particularly given the small number of cases involved. (Sixteen couples in the main sample, and one in the control group, owned four-apartment or larger dwellings).

There were nine families in the sample in which a child attended or had attended one of the fee-paying high schools which represent the equivalent of the grammar school in Edinburgh. (Nearly all of the state secondary schools are non-selective, but only a few, the senior secondary schools, provide a sixth form course). The fees at these schools are modest - in several cases charged in relation to the parents' income. Nonetheless, to pay £5 or so per term, as well as buying uniform, is a small though significant sacrifice on the part of parents in the income range to be found in the sample. The parents who paid these fees were not apparently better off than the rest of the sample - in fact, one of the fee-paying fathers only earned £15 per week. That children should attend such schools, therefore, is an indication not only of their ability to pass the entrance exam, but of their parents' willingness to foot the bill. In addition to these nine families who were paying school fees or had paid them in the



past, there were two families with a child who had stayed at a state school to take Higher School Certificate, and intended to apply for university. There are, therefore, altogether 11 families in the sample to whom the children's education seems unusually important. Of these, five are owner-occupiers of four rooms or more, and one had a smaller flat.. The table below shows that this does represent a substantial association between owner-occupancy of large dwellings and a special interest in education:-

Table 11  
Educational attainment and  
owner-occupancy

	<u>Owner-occupiers</u> <u>of four rooms</u> <u>or more</u>	<u>Smaller owner-</u> <u>occupiers and</u> <u>tenants</u>	<u>Total</u>
Child at high school, or been to high school, or stayed on to do "Highers"	5	6	11
No child in the family has done any of these things	4	27	31
Total	9	33	42

Q=0.70

Note: Those who have no children of secondary school age are excluded; but those whose children have left school (including control couples) are included.

The next table shows the relationship between owner-occupancy of four rooms or more, and having white-collar friends:-

Table 12  
Owner-occupancy and occupations  
of friends

	<u>Owner-occupiers</u> <u>of four rooms</u> <u>or more</u>	<u>Smaller owner-</u> <u>occupiers and</u> <u>tenants</u>	<u>Total</u>
Some friends have white-collar jobs	10	22	32
None of friends mentioned have white-collar jobs	7	58	65
Total	17	80	97

Note: Controls are included

A somewhat higher proportion of the large-scale owner-occupiers have white-collar friends. ( $\chi^2 = 4.41$ ,  $p = 0.033$ , significance is obtained at the 97.5% level of confidence).

These two things, having white-collar friends, and taking a special interest in the children's education, could be related to each other and to the owner-occupancy phenomenon in various ways. Through living in the better tenement districts, the class composition of which is very mixed and contains a substantial middle-class element, people may come into contact with professional and clerical workers and make friends with them. Such friends could be parents of children's school friends, or neighbours, or met through local pubs or churches. Meeting such people could mean that the working class couples adopt certain features of their friends' life style, which may include sending their children to high schools. On the other hand, some of the children of the large-scale owner-occupiers who went to high school, reached the age of twelve while living in some other sort of accommodation. With such a small number of

cases, it is not possible to assess how important was the effect of the district of residence on the choice of school. Another possibility is that children who went to high school may have introduced their parents to the middle-class parents of their school-friends.

In most cases it is not possible to tell from the questionnaire data how long the large-scale owner-occupiers had known their middle-class friends, or where they had met them. One couple had made such friends through their church, and two others through the wife's work. As for the others, it is not known how their acquaintance with white-collar friends originated. People may meet them through living in a partly middle-class district, or they may go to live in such a district because they have already taken on, or wish to take on, some aspects of a middle-class life style.

There are, then, certain distinctive cultural characteristics of the large-scale owner-occupiers, which however do not seem to be associated with the A-type house-keeping system itself. But, owing to the fact that there are so few large-scale owner-occupiers in the sample, there is a danger of committing a Type II error here if one denies the possibility of a connection between the A-type system and the life-style associated with large-scale owner-occupancy, which embodies certain features of a middle-class culture.

Summary of the connections between housekeeping system and other aspects of economic behaviour

The conclusions of this section may be summarised as follows:-

- (1) the A-type husbands are more likely than the P-type husbands to put some of their overtime earnings towards collective purchases. But this does not seem to act as a disincentive to the A-type husbands to do overtime.
- (2) A greater proportion of A-type than of P-type husbands take some responsibility for saving. Joint saving is also more common amongst the A-type couples.
- (3) Durable goods ownership, including home ownership, is more extensive amongst the A-type couples; so, too, are ambitions to acquire more durable goods.
- (4) A-type couples are much more likely than P-type couples to buy the larger tenement flats in districts of mixed occupational composition - a decision which may be made not so much because of the intrinsic quality of such housing but because of the particular life style with which living in such districts is associated in the minds of the sample.

#### Section 4 Summary and conclusions of the previous three sections

What are the implications of the foregoing findings for the questions about housekeeping systems posed in Chapter 3? The reader will recall that these questions were of two kinds, one relating to the commodity set issue, and the other to the effects of the housekeeping system upon the propensity to work.

The typology of housekeeping systems developed in this chapter shows that commodities in the household budget are of three kinds:-

- (1) a "core" of husband's personal expenditure, commodities which are very rarely paid for by the wife: this group includes tobacco, in so far as it is purchased for and by the husband, and alcohol.
- (2) one which may be paid for by either spouse, but which are more frequently paid for by the husband than the wife; namely, husband's clothes.
- (3) a group of items which form the "core" of the wife's commodity set: food and cleaning materials. No instance was found in the sample where the wife did not pay for these items.
- (4) a group of items which are more frequently paid for by the wife than the husband; rent, medicines, other chemists' goods, children's clothing, women's clothing, mortgage, rates, fuel, furniture and hire purchase, insurance, T.V. rental.
- (5) a few items which are almost equally likely to be paid for by either party: children's pocket-money, husband's clothing, the running of the car, household repairs.

In the A-type system, owing to its greater flexibility, and to the fact that the husband's pocket-money fund is held jointly with money to be used for some major collective payments, the boundaries of the commodity sets are more fluid

and one would expect there to be greater cross-elasticity of substitution between sets.

Since less P-type husbands devote any of their over-time earnings to collective expenditures, it seems reasonable to assume that any increment in their income is more likely to be allocated to the husband's pocket money, than is the case with A-type couples. Yet there does not seem to be any evidence that this provides P-type husbands with an incentive to work harder. This finding is examined at greater length in the next chapter.

A number of findings in this chapter identify the P-type housekeeping system as a set of budgeting practices associated with economic individualism within the family.<sup>29</sup> That is, these practices are associated with a way of life in which the individual has a considerable degree of independence in both spending and labour supply decisions.

<sup>29</sup> One should perhaps stress "within the family". If the P-type system is associated with a "traditional" life-style, and possibly with a segregated marital role-relationship, one would expect this type of economic individualism within the family to be associated with a relatively strong degree of attachment to workmates, high conformity to work-group norms including those relating to trade unionism. The A-type system, on the other hand, may represent what I have roughly termed "collectivism" within the family, but in so far as it is associated with an "affluent" or "home-centred" life style, it may go together with a low degree of involvement with the work-group and a relative lack of interest in trade union affairs. (See Goldthorpe, Lockwood et al: "The Affluent Worker: Industrial Attitudes and Behaviour, 1968;" the same authors "Affluent Worker: Political Attitudes and Behaviour", 1968, pp. 29, 74 et seq., and their "Affluent Worker in the Class Structure", 1969, pp. 65, 166-70). The relationship between "traditionalism" and class-consciousness is, however, more complex than these simple generalisations suggest (see Lockwood, 1966).



The area of decision-making in which the individual may be said to maximise his individual utility subject to normative constraints, may be much larger for P-type than for A-type couples. Conversely, people with an A-type system may make a larger proportion of their decisions with regard to a notion of joint utility of the kind pointed by Fleischer and Mahoney (c.f. Chapter 2) than do P-type couples.

Couples having the A-type housekeeping system tend to be younger than those with the P-type system: the former are more likely to be owner-occupiers and to have a large number of durable goods, as well as being more likely to want more such goods. A-type couples also have higher incomes. Bearing in mind these economic differences and the greater division of labour between the sexes in the family's economic functions which is to be found amongst the P-type couples, it may be possible to identify the P-type housekeeping system with a traditional working-class life style, and the A-type system with a so-called "affluent" life style. If this is valid, it may well imply that the P-type system will become less common as time goes on.

The findings about housekeeping systems in this chapter must, however, be qualified by the recognition that there may be substantial regional difference in the nature and relative frequency of budgeting practices. A preliminary analysis of the "Life Styles" study of Edinburgh and Reading carried out by Edinburgh University in 1969, showed that the A-type system was much more

common amongst manual workers in Reading than manual workers in Edinburgh. This could be because the "traditional" life style is more common in Edinburgh, but possibly the cultural correlates of budgeting practices differ from one region to another.<sup>30</sup> Data covering several regions may be necessary to determine whether this is the case.

#### Section 5

#### Note on the housekeeping system and the distribution of income between husband's pocket money and collective expenditures

In this note, I shall attempt to answer the questions posed by Young (1952) and others as to what proportion of the husband's income is retained by him as pocket money, and what factors lead to variations in this proportion. As I pointed out in Chapter 3, this issue has been seen, in the past, as one of great social importance. It has been argued that variations in the amount kept by husbands for personal expenditure on beer, tobacco and so on, may entail that the family's total income is a poor indicator of the resources available to the wife for collective expenditures.

I argued in Chapter 3 that there is considerable evidence that the face value of the "housekeeping allowance", is not a complete guide to the amount husbands contribute to collective expenditure. The survey data confirms this, and shows that it is not true even in the P-type

<sup>30</sup> At the time of writing, Professor Burns' data has not been completely analysed. Unfortunately, since I left Edinburgh some time before completing this thesis, I did not have access to his material for long enough to investigate this point.

cases. Most of the P-type husbands paid for one or two small collective items out of their retentions. In the A-type families, the size of collective payments out of husband's retentions is large, and it is important to have some way of estimating their value.

The THKA was therefore estimated according to the formula given in section 1 of this chapter; THKA = face value housekeeping allowance + contributions made by the husband to collective expenditure, out of his retentions - payments made by the wife on behalf of the husband. There are 74 couples with children for whom such an estimate can be made and for whom husband's take-home pay is also known.

In the questionnaire, questions were asked about rent, rates, mortgage and feu-duty<sup>31</sup> payments; and about amounts spent on hire purchase, including clothing clubs. These items are therefore known for individual families. Other items paid for by husbands, both in the A-type and P-type systems, were estimated from the Family Expenditure Survey. (The exact methods of the calculations are given in Appendix B to this chapter). Having classified a family according to its gross family income and the number of children, it was possible to find out what was the family's likely expenditure on a particular commodity group, from the appropriate part of table 5-7 of the 1967 Family Expenditure Survey. Since expenditure patterns in Scotland are rather different from that of the U.K. as a whole, I adjusted the figures by the ratio of Scottish expenditure to U.K. expenditure over the period 1965-7, for the commodity in question. For this,

<sup>31</sup> A form of ground-rent virtually universal for owner-occupiers in Scotland.

Table 34 of the 1967 Family Expenditure Survey was used. This produced an estimate of the amount families in Scotland, of a particular income group and family size, would, on average, have spent at the time of the survey. It was then possible to add up the value of all the items the husband paid for on behalf of the family, out of the money he kept, and add this to the face-value housekeeping allowance (the money actually given to the wife) to obtain an estimate of expenditure for collective purposes, or the "true" housekeeping allowance. In the few cases where the wife bought the husband's cigarettes or paid for the car expenses, the value of these things had to be subtracted before the "true" housekeeping allowance could be obtained. In the rest of this section, the term "true housekeeping allowance" or THKA for short, will be used to refer to the estimate of collective expenditure just described.

There are, of course, several flaws in the method of calculation which I have used. The Family Expenditure Survey uses rather broad income groups, so that, for example, a family in this sample whose total income is £18 per week is assumed, in my calculations, to have the same expenditure as the average for the Family Expenditure Survey income group £15-£20. The distribution of income within the groups used in the reports is not published, and without any knowledge on this point, it did not seem appropriate to try to make any adjustment for a family's position within an income group. Although one would not expect there to be much variation in expenditure at a given income level on some items, such as fuel, one would expect

there to be considerable variation even at a given income level on other items, such as furniture and household repairs and decorating. The estimate for children's pocket money may be a bit unreliable (see Appendix B) because one would expect pocket money per child to vary, to some extent, with the size of the family. Land (1969) says that in large families, with five or more children, pocket money is small, and in some cases rarely given. There are only six families in the sample with five or more children under working age; but there are another twelve with four children. Presumably it is very likely that families with four children are less generous with children's pocket money than families with only one child - they have to be. A few children may receive some pocket-money from their grandparents or other relations; if so, they would receive correspondingly less from their parents. Hilde Behrend's statements (1966), which have been used as a basis for the pocket money estimates, refer to the amount children receive as spending money from all sources, and therefore presumably include money given by grandparents, etc. But this is only likely to occur where a family says that they have close contact with the grandparents, and this will show up in what the couple say about their leisure activities.

Another reason why the estimate of THKA may be regarded as crude is that it is not possible to take into account differences in expenditure patterns arising from differences in size of dwelling and type of tenure. Expenditure on repairs, decorating and furniture is likely to be related to



the size of dwelling; and owner-occupiers are likely to spend more on repairs and decorating than tenants. The FES reports prior to 1968 did not separate owner-occupiers from tenants, and still do not do so for each region. One would expect that the much smaller scale of housing expenses in Scotland, and the much smaller differentials in housing expenses between council tenants and owner-occupiers than exist elsewhere in Great Britain, would make the FES tables by type of tenure a poor guide to the expenditure differences which are caused by this factor in Scotland. All of these potential inaccuracies in the estimate of the THKA have to be taken into account when assessing the value of the data presented here.

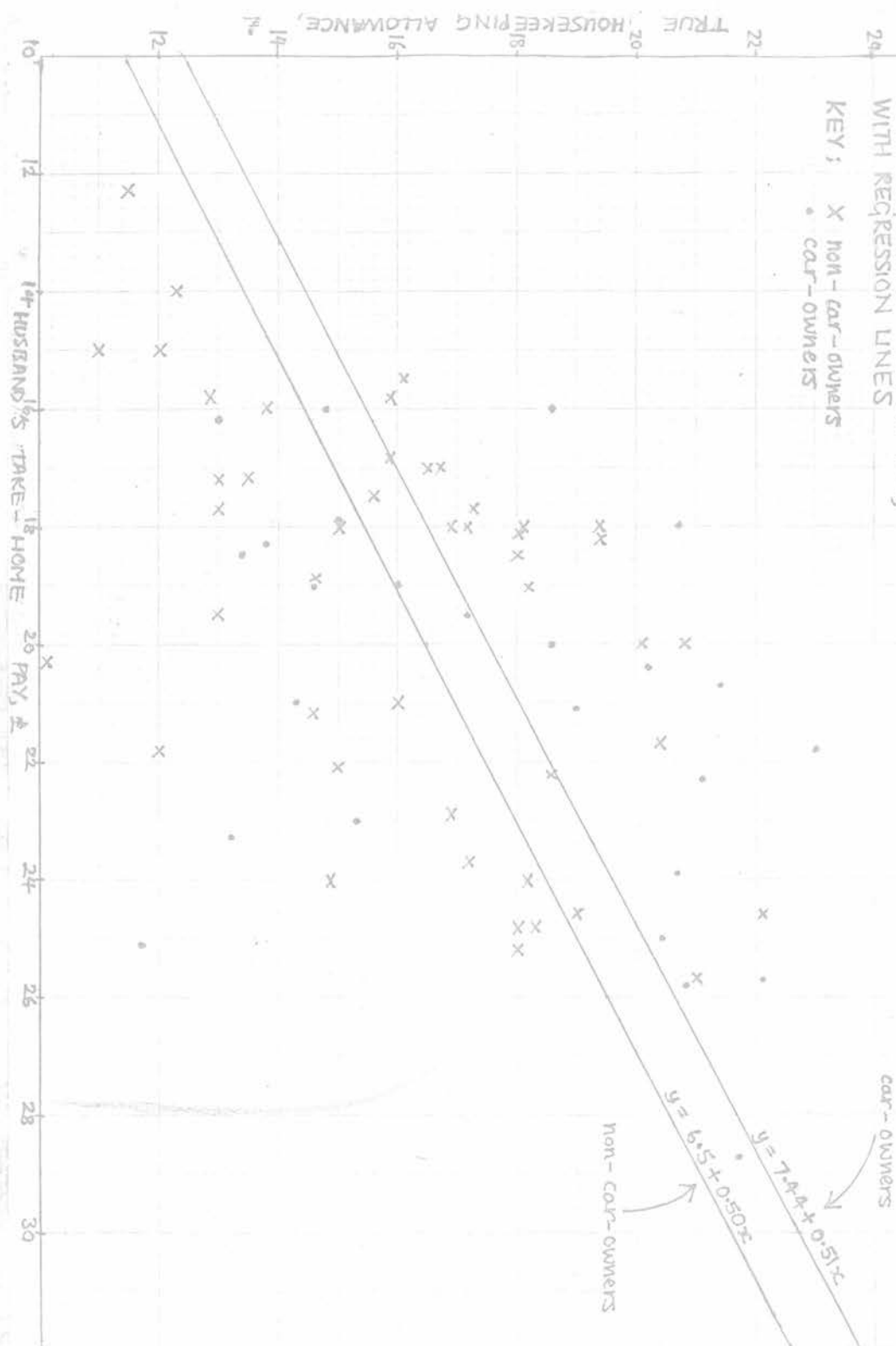
Car ownership is a source of variation in expenditure patterns which is particularly important when measuring the relative size of collective expenditure and the husband's pocket money. One would expect car-owning husbands to keep a much larger amount of pocket money than non-car-owners at the same income level, in order to pay for their cars. I have therefore treated car-owners and non-car-owners as two separate sub-samples in analysing variations in the size of THKA relative to the husband's take-home pay.

Graph 1 shows two regressions of THKA on THP, one for car-owners and the other for non-car-owners, together with a scattergram of individual cases. Most surprisingly, these two regression lines appear to show that at any given income level, car owners keep less, not more, pocket money than the others. In fact, the levels of pocket money which, according to the regression line, are kept by the car owners, are much smaller than, according to the FES data, men



GRAPH 1  
SCATTERGRAM OF THKA ON THP,  
WITH REGRESSION LINES

KEY: X non-car-owners  
• car-owners



do spend on car expenses, tobacco, drink, and other personal purchases. The sum of estimated pocket money plus THKA exceeds THP by an average of £3.1, in the subsamples of car-owners. A plausible explanation of this seems to be that several items in the estimates of collective expenditure (THKA) were taken from FES data which do not distinguish between car owners and others, so that at least some such items have been over-estimated in my initial estimates of THKA for car owners. Car owners, in order to pay for their cars, must spend less on other things than non-car-owners having the same income. Corrections to the estimates of THKA for car owners therefore seemed to be required.

It is necessary at this point to consider more generally how sources of variation in household expenditure may affect the validity of the original estimates of the THKA. For any household it must be true that:-

$$THP = THKA' + P + e_1 + e_2 + e_3$$

where:

THKA' is the original estimate of THKA,

P is the expected value of the husband's personal expenditure, as estimated from FES data,<sup>32</sup>

<sup>32</sup> P was estimated by exactly the same method as was used for the original estimates of THKA items from FES data. A separate figure was calculated for each family size/income band combination, and each such figure modified by a regional adjustment factor as described on page of Appendix B. According to the FES report for 1967, 56% of households recorded expenditure on car maintenance and running costs. The actual figures in the tables were therefore multiplied by 100/56 to give what car owners actually spent. Twenty-one per cent of households in the FES recorded expenditure on the purchase of a car, so that the actual figures for this item were multiplied by 100/(21 x 56/21) to give the average expenditure by car owners themselves.

$e_1$  is an error term arising from the fact that the FES data which enter into the estimate of THKA do not distinguish between car-owners and others,

$e_2$  and  $e_3$  are error terms arising from those individual variations in collective expenditure and husband's personal expenditure respectively, which will be found after car ownership has been controlled for.

As stated, car owners must spend less on most other items, than the average amounts given in the FES, and similarly, non-car-owners must on the whole spend more than these average amounts. Thus,  $e_1$  will be negative for car-owners and positive for non-car-owners. The original estimate of THKA should therefore be adjusted downwards for car-owners and upwards for non-car-owners, by an amount equal to the term  $e_1$  as defined above.

For car-owners, I took as a measure of  $e_1$  the amounts which a household would, according to the FES figures, be expected to spend on car purchase, running and maintenance. Each car-owning household was assumed to spend on its car the average amount obtained from the FES for its income band and family size. Having thus estimated  $e_1$ , I distributed it between THKA and husband's personal expenditure in the same proportion as total expenditure. (Thus, if the original figure for THKA constitutes 80% of the husband's net income, 80% of the error term was allocated to, and subtracted from, THKA to make a revised estimate of THKA).

To adjust the THKA estimates upwards for non-car-owners by the same method would be much more complicated.

It would involve estimating by how much the expenditure of non-car-owners on household items exceeds the average amounts given in the FES by virtue of the fact that they do not spend money on cars. To avoid extensive computations I used a more crude measure of  $e_1$  for non-car-owners. The basis of this was a measure of the sum of all three error terms,  $E$ , obtained by the formula:-

$$E = THP - (THKA' + P)$$

The average value of  $E$  (the amount by which estimated total expenditure falls short of income) is only £1 for non-car-owners, so that the amount of adjustment required for the THKA estimate is fairly small, and errors arising from the crudity of the method are probably insubstantial.

Where total expenditure exceeds income, as it did for 21 non-car-owners,  $E$  is negative. The average value of  $E$  was calculated for each income band, and this average value was used as a correction factor for all cases where some shortfall was present. (I distributed the correction factor between THKA and husband's personal expenditure in the same way as for car-owners). Where the sum of THKA' and  $P$  exceeded THP anyway, I made no correction to the original estimate of THKA, so that 21 cases remained unaltered.

The corrections for non-car-owners are, then, inaccurate to the extent that the correction factor used was a measure of the mean value of all three error terms, not of  $e_1$  alone. In a large sample, the mean values of  $e_2$  and  $e_3$  would each be zero, so this would not matter; but in a small sample like this they may distort the estimate of  $e_1$  slightly.

Sources of variation in the size of THKA

Revised regressions and scattergrams of THKA on THP for both car-owners and non-car-owners, using the revised THKA figures, are shown in Graph 2. Both these regressions, and the ones in Graph 1, have substantial a-coefficients, so that the ratio of THKA to THP falls as the income variable rises. To take THKA as a proportion of THP would not, therefore, be an appropriate way of controlling for income, although it would be the simplest. I have therefore analysed variations in THKA by examining the deviation of particular cases from the regression line. In the analysis which follows, the dependent variable, D, is defined as actual THKA minus the expected value of THKA given by the appropriate regression line. Thus, if actual THKA is greater than expected, D will be positive; if it is less than the expected value, D will be negative. Since these deviations are measured from whichever regression line is appropriate (car owners or non-car-owners) the two subsamples can be re-aggregated, and the average value of D for households having some particular characteristic calculated over both car-owners and non-car-owners.

Such calculations of the average value of D were performed to test a number of variables which might be thought to affect the size of collective expenditure relative to husband's income. The results are given in Table 13. The values of Student's t for difference of means tests performed over the whole sample are also given where appropriate.

GRAPH 2  
SCATTERGRAM OF REVISED THKA ESTIMATE ON THP,  
WITH REGRESSION LINES

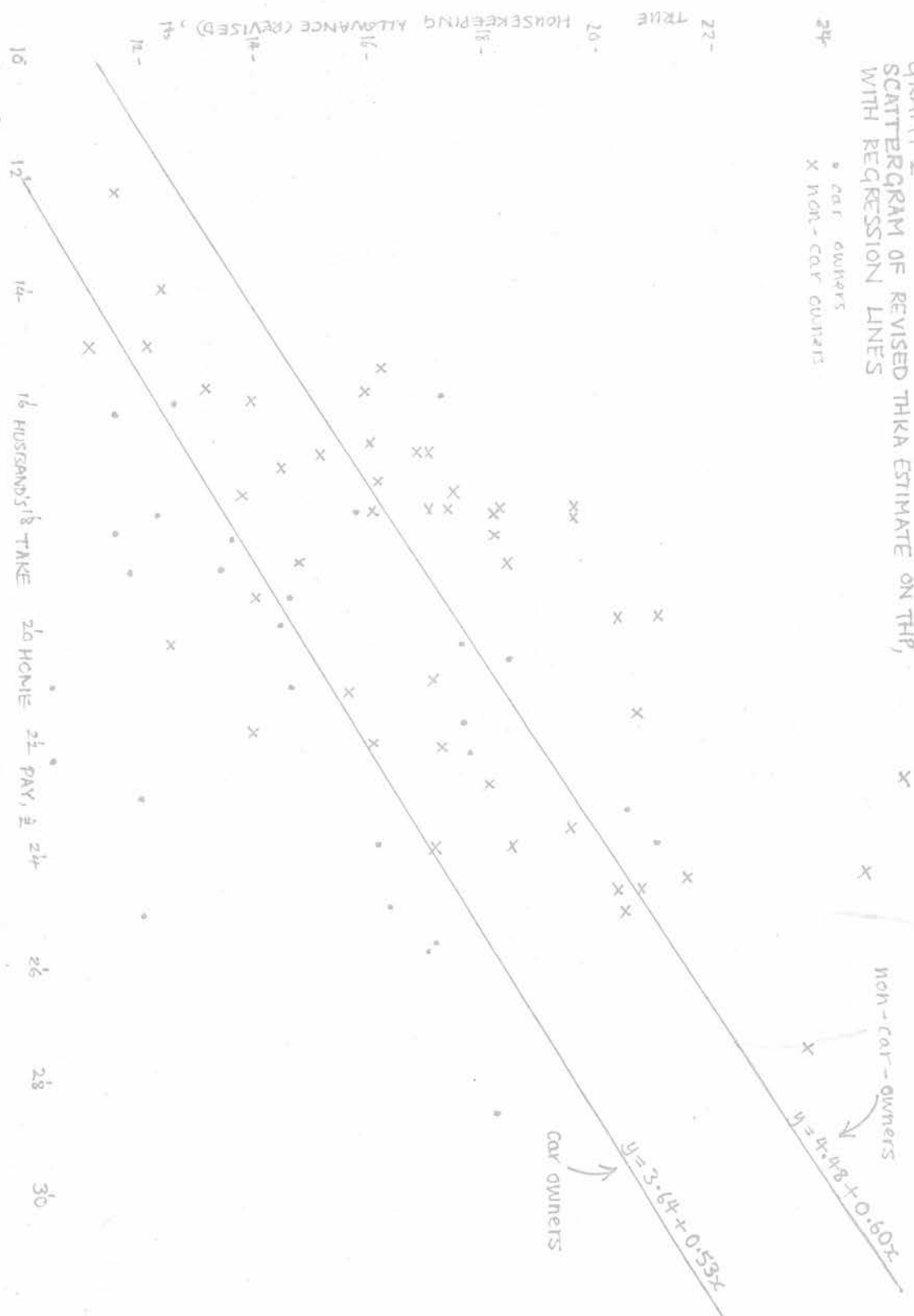




Table 13  
Sources of variation in THKA

<u>Characteristic</u>	<u>Mean Value of D (a)</u>	<u>Difference of means</u>	<u>N</u>	<u>Student's t</u>
Husband and wife have separate acquaint- ance sets	- £2.40	£2.60	10	2.16
They do not	+ £0.20		64	
Wife works	- £1.10	£2.00	32	2.30
Wife does not work	+ £0.90			
More than 3 children	+ £1.30	£1.60	17	1.46
3 children or less	- £0.30		57	
At least one child working	- £1.10	£1.30	13	1.86
No children working	+ £0.20		61	
Eldest child at least 14	- £0.90	£1.30	18	(b)
Eldest child less than 14	+ £0.40		56	
A-type housekeeping system	+ £0.50	£1.00	36	1.77
P-type housekeeping system	- £0.50		38	
Husband skilled	- £0.30	£0.70	30	1.09
Husband unskilled	+ £0.40		44	
Husband's or wife's father followed a traditional occupation	- £0.20	£0.70	14	1.02
Neither husband's nor wife's father did follow a traditional occupation	+ £0.50		60	

<u>Characteristic</u>	<u>Mean Value of D (a)</u>	<u>Difference of means</u>	<u>N</u>	<u>Student's t</u>
Owner-occupier of at least 4 rooms	(c)	negligible	14	(d)
Not an owner-occupier of at least 4 rooms	+ £0.10		16	
Some hire purchase debt	+ £0.1	£0.30	41	(d)
No hire purchase debt	- £0.2		33	

Notes:

- (a) D = actual THKA - expected value of THKA given by the appropriate regression line
- (b) Not calculated because the effect of this variable is suspected to be spurious
- (c) Negative value of less than 10p
- (d) Not calculated because the difference of means was so small

The variable which I have entitled "separate acquaintance sets" requires some explanation. From several questions in the schedule it was possible to build up a picture of whether husband and wife had most of their acquaintances in common or whether they moved in separate circles. Those couples of whom the husband and wife moved entirely in separate circles, without mentioning any friends in common, were defined as having separate acquaintance sets. This variable appears to be important in the analysis of variation in overtime hours, which will be given in Chapter 6, and that was why it occurred to me to test it here.

The relative importance of these variables as determinants of the size of the THKA may be gauged by the magnitude of the difference between the mean value of D for one score of the dichotomy and its mean value for the other

score. Table 13 places the variables in rank order of the difference of means. It will be seen that THKA is more likely to be lower than the expected value (D negative) where the wife is working, where there are separate acquaintance sets, where one or more children are working, where the eldest child is at least 14<sup>33</sup> and where there are more than three dependent children.<sup>34</sup>

The product-moment correlation coefficient between D and the number of dependent children is 0.36, which is significant at the 99% level of confidence. All of these variables show a difference of means of at least £1.3. The influences of the wife's income and of the separate acquaintance sets variable are significant at the 95% level of confidence. The effect of working children's income is not significant, but almost so. (The critical value of t for a 90% confidence level with 72 degrees of freedom is 1.67). I did not calculate the value of t for the age of the eldest child, because, as explained later, I suspect its effect is spurious.

Sixth in order of importance, and giving a difference of means of £1.0, is the housekeeping system variable, and this is particularly interesting in the light of the analysis carried out in the earlier part of this chapter. I have argued there that A-type couples in various ways place more emphasis on collective expenditure than P-type

<sup>33</sup> The age of the eldest child was chosen for testing because it is the only available indicator from the data of the parents' age.

<sup>34</sup> i.e., living at home and not working.

couples. This seems to be borne out by the differences between A and P-type couples in the size of D; those with an A-type system have a substantially higher mean value of D than the P-type couples. The difference of mean values of D for this variable is not significant at the 95% level of confidence, although it is nearly so, there being a chance of over 90% that this result would be repeated in the population..

There is, however, a slight association between the P-type system and the presence of secondary wage-earners, both wives and children, as shown in Table 14. I therefore examined the effect of the housekeeping system on the size of THKA, controlling for the presence of secondary income. The results of this are shown in Table 15.

Table 14  
Housekeeping system and secondary income

	<u>A-type</u>	<u>P-type</u>	<u>Q value</u>
No. with wives working	12	20	} 0.38
No. with wives not working	24	18	
No. with at least one child working	4	9	} 0.42
No. with no children working	32	29	

Table 15

Effect of housekeeping system on the value  
of D, controlling for secondary income

	<u>Average value of D</u>	
	<u>A-type</u>	<u>P-type</u>
Either wife or child working	- £0.4 (N=12)	- £1.0 (N=25)
Neither wife nor child working	+ £1.1 (N=24)	+ £0.7 (N=13)

Thus, although controlling for secondary income reduces the difference between A-type and P-type cases, A-type cases even then have higher THKAs. The effect of skill level, and its relationship to the effect of the housekeeping system, is at first sight puzzling. Since the A-type system predominates amongst skilled workers, one would expect that if the effect of the housekeeping system is genuine (rather than spurious), skilled workers would have higher values of D than unskilled workers. But the opposite is true. Why does skill level have this effect? Unskilled workers tend to have a larger number of children, and the unskilled group also contains a larger number of people whose fathers (or whose wives' fathers) followed "traditional" occupations,<sup>35</sup> as shown in Table 16 below. The first of these factors will tend to raise the values of D for unskilled workers, but the second will tend to reduce them. There is no association between skill level and the presence of secondary income. The only reason which occurs to me why unskilled workers should have larger THKAs than skilled workers is that the wives

<sup>35</sup> i.e. farming, fishing, and mining; this variable has already been discussed earlier in this chapter.

of unskilled workers may have a greater sense of insecurity, and may want to keep a larger share of the husband's income under their control in case of some sudden shortfall of income arising from a loss of overtime opportunities, or from unemployment. But this is only speculation.

Table 16

Skill level, occupations of the couple's  
parents, and size of family

	<u>Husband's or wife's father followed a "traditional" occupation</u>	<u>Couple have at least four children</u>
Husband skilled (N = 30)	4	5
Husband unskilled (N = 44)	<u>10</u>	<u>12</u>
Total	14	17

If the effect of the housekeeping system is re-tested, controlling for skill level, it is found to be larger amongst skilled workers than it is in the sample as a whole, as shown in Table 17 below.

Table 17

Effect of the housekeeping system on the  
size of THKA, controlling for skill level

	<u>Average value of D</u>	
	<u>A-type</u>	<u>P-type</u>
Husband skilled (30 cases)	+ 0.7 (20 cases)	- 2.5 (10 cases)
Husband unskilled (44 cases)	+ 1.1 (15 cases)	+ 0.2 (29 cases)

The question must be raised, however, is the apparent influence of the housekeeping system on the average value of D really due to the "traditional occupation" variable?



It will be seen from Table 13 that the mean value of D is negative (i.e. THKA lower) where the husband's or wife's father followed a farming, fishing or mining occupation. In table 17 above, the smallest values of D are obtained for the unskilled, P-type group. Table 18 below shows that families with origins in "traditional" occupational communities are concentrated in this group.

Table 18  
Distribution of couples whose parents followed  
"traditional" occupations between skill and  
housekeeping type categories

	<u>No. whose parents followed</u> <u>"traditional" occupations:</u>	
	<u>A-type</u>	<u>P-type</u>
Husband skilled	2	1
Husband unskilled	2	9

N = 14

This suggests that the effect of the housekeeping system should be tested again, this time omitting the families of "traditional" origins from the sample. Table 19 shows the results of this test.

Table 19  
Effect of the housekeeping system on the  
size of THKA, controlling for skill  
level and omitting couples whose  
parents followed "traditional"  
occupations

	<u>Average value of D</u>	
	<u>A-type</u>	<u>P-type</u>
Husband skilled	+ £0.7 (18 cases)	- £2.0 ( 8 cases)
Husband unskilled	+ £1.3 (13 cases)	- £0.1 (21 cases)

The effect is to reduce the difference between A-type and P-type couples, where the husband is skilled, but, curiously enough, to increase it where the husband is unskilled. Neither the differences in this table, nor in the previous one, are significant. Obviously the sample is too small to control for secondary income, skill level, and occupations of couples' parents all at once. Only by doing this on a larger sample would one be able to evaluate the effect of the housekeeping system reliably.

Some other connections between the variables listed in Table 13 also deserve attention. That the value of D appears lower where the eldest child is 14 or over may be a spurious finding, since the age of the eldest child is obviously strongly associated with the existence of secondary income from working children. The eldest child is also more likely to be at least 14 where there are a large number of children. In any case, the product-moment correlation coefficient between D and the age of the eldest child is only - 0.12, which is not significant.

The separate acquaintance sets variable was tested extensively for spuriousity, because it is not immediately clear why it should have any connection with the housekeeping system or the size of household expenses. Table 20 shows that there is no association between this variable and the others listed in Table 13 of such a nature as to cause a spurious difference in the size of THKA. The couples with separate acquaintance sets are slightly less likely than the rest of the sample to have a large number of children, which would tend to make their

THKAs low, but to offset this they are less likely to have working children or a P-type housekeeping system.

Table 20

Characteristics of couples having separate acquaintance sets for husband and wife

	<u>Couples with separate acquaintance sets</u>	<u>Rest of sample</u>
	(N = 10)	(N = 64)
Percentage with working wives	40	44
Percentage where the husband smokes	50	74
Percentage with working children	10	19
Percentage with the eldest child aged at least 14	10	27
Percentage where husband's or wife's father showed a traditional occupation	10	20
Percentage with more than three children	10	25
Percentage with P-type housekeeping system	20	56

It may be possible to explain the effect of the separate acquaintance sets variable by reference to Bott's concept of a segregated marital role relationship, a point to which I shall return shortly.

On page 87 above, I put forward the hypothesis that the proportion of his income which the husband devotes to collective expenditure might be smaller where, by reason of fatigue or lack of overtime opportunities, he cannot guarantee to earn the same amount of money each week. I did not dichotomise this variable since it is difficult to postulate a suitable point of division in the scale. The correlation coefficient between D and the percentage of pay

obtained from overtime and bonus earnings is only - 0.14, which is not significant. But this may not disprove the hypothesis, which postulates the risk of a fall in income as the critical factor. Possibly a heavy reliance on overtime earnings is not associated with such risk for the men in question.

### Conclusion

The above analysis throws up five variables which have a substantial effect on the size of the "true" housekeeping allowance relative to the husband's take-home pay. Where the wife or a child is working, the proportion of the husband's income devoted to collective expenditure is lower than where he is the only wage-earner in the household. The larger the number of children, the larger is the true housekeeping allowance.

The analysis also reveals that THKA is higher for couples who have an A-type housekeeping system than for those who have a P-type one. Although this result is not significant, it may at least provide some tentative evidence in favour of the general argument put forward earlier in this chapter, that A-type couples place more emphasis on collective expenditure in their consumption patterns and aspirations.

Another finding is that THKA is very much lower where husband and wife have separate acquaintance sets. If Bott's findings on the social correlates of the segregated marital role-relationship are correct, the separate acquaintance sets factor, which is one feature of a segregated marital role-relationship,<sup>36</sup> may be identified

<sup>36</sup> See Bott (1957) 1968 edition, pp.67 et seq.

as part of a "traditional" life style which entails a considerable degree of economic individualism alongside a rather rigid division of labour between the sexes. A further finding, which will be presented more fully in Chapter 6, is that husbands with separate acquaintance sets from their wives do a large amount of overtime work without any apparent economic pressure, from household expenses, to do so. This again suggests an association between having separate acquaintance sets and a high degree of economic individualism.



It cannot be over-emphasised that the face value of the housekeeping allowance may have little bearing on the proportion of husband's net income which is actually devoted to collective expenditures. In other words, it may make no difference in the end whether the husband gives his wife a small basic allowance, perhaps to cover little more than purchases of food, and pays for other household expenses himself, (as in the extreme A-type system), or whether he gives his wife a very large housekeeping allowance, keeping only two or three pounds for himself, but expects his wife to pay for all collective purchases (the extreme P-type system). I think, therefore, that Young's 1952 article perhaps paid too much attention to the phenomenon of the husband handing over all his wages to the wife. Presumably in most such cases, discovered by earlier writers (Soutar, for example) to whom Young refers, the husband did receive some pocket money back, and the amount he actually had for personal expenditure may well have been no less than where he kept it back in the first place. However, since there were only two instances of the "whole wage" system in my sample, I am unable to substantiate this suggestion. It should, moreover, be qualified by Land's evidence that amongst her sample of large families, many of whom had experience of living on social security benefits, both the "handing-over" system and very small amounts of pocket money for the husband were common. Possibly, though, there are certain circumstances (many children, unemployment) where the whole wage system does not act as a check on the amount the husband keeps.



To conclude, one must emphasise that the amounts kept by husbands in the Edinburgh sample are typically small,<sup>35</sup> and that the distribution of income between husband and wife does not seem to be a source of touchiness or stress in the couple's relationship; nearly all couples talked about their housekeeping systems quite freely when both partners were present. In stating that the P-type system represents an individualistic pattern of consumption, it is not therefore my intention to associate it with the stereo-type of the stingy, even irresponsible husband that creeps into the work of Young (1952) and Dennis et al (1962). When it is considered that half of the wives in the sample worked as well, and that 18 families had working children contributing to the housekeeping money, the husband's pocket-money is seen as a relatively minor fraction of total household resources. Moreover, the expenses of running a car have been counted as husband's personal expenditure, and in so far as the car is a collectively used commodity to some extent, this leads to a slight over-estimate of the husband's personal expenditure.

<sup>35</sup> In the case of car-owners, husbands keep an average of £6.10 pocket money (29.4% of their average take home pay of £21.40). Husbands who do not have cars keep an average of £2.10 out of an average take home pay of £19.20, i.e. 11.0%.

APPENDIX ATHE CHECKING OF INCOME STATEMENTS

The most important concept of income used in analysis was TOTAL TAKE HOME PAY (referred to as THP for short). This is equal to:-

the sum of: husband's basic wage, overtime earnings, shift allowance, and bonus earnings if any

minus the sum of: estimated tax, national insurance flat rate and graduated payments, and any payments into a private pension scheme; also, in one case, payments into the firm's holiday fund<sup>1</sup>

Deductions which would have been taken out of the actual pay packet, but which have not been subtracted from the THP amount are:-

payments into a firm's savings scheme, where applicable; union dues (usually less than 4s. a week).

The questionnaire was intended to obtain statements of the men's income which would correspond to this concept and also statements of the amount of overtime they generally worked. Their statement could differ from what their THP really was, either because they misunderstood the question, and therefore gave their basic wage or gross wage, or because of deliberate understatement or overstatement of their income. I have attempted to check men's statements

<sup>1</sup> This seemed to be in the nature of a customary deduction which then entitled the employee to holiday pay. I have not therefore counted it as voluntary saving by the husband.

against a calculation of what their income "should" have been, based on the firm's wage rates.<sup>2</sup> Unfortunately, not all firms were willing to give this information, and for the smaller printing firm I did not like to ask, because only five men were employed, and it would have been tantamount to asking for information about individuals. Information given by firms was supplemented in some cases from the Department of Employment and Productivity's handbook on wage rates laid down by union agreements: "Time rates of wages and hours of work, 1968".<sup>3</sup> The timber engineering, paper and building firms did not provide information about wage rates; in the brewery, the pay structure was undergoing change during the interviewing period, and information provided by the firm was scanty, so that I was unable to check men's statements there. For those firms where checking was possible, the exact sources of information used were as follows:-

<sup>2</sup> If a man's hourly wage rate, overtime premiums and overtime hours are known, it is easy to make an independent estimate of his income which can be used to check his own statement. If the man is a shift-worker, one also needs to know how frequently he works each shift, and what the shift-working allowances are for each shift. It is then possible to work out his average earnings over the shift-work cycle (e.g. a three-week cycle of one week nights, one week mornings and one week back-shift).

<sup>3</sup> The rates actually paid in Edinburgh may well have been above the nationally agreed minimum rates, so that there is a possible source of under-estimation here. But in fact, there was no marked degree of disagreement between men's income statements and the rates given in this document.

Gas Board: detailed list supplied by the organisation of hourly rates applicable to different occupations, for all except foremen and one other.

Rubber factory: rates given by the firm for the two main grades; semi-skilled production workers and maintenance craftsmen. Charge-hands' rates were not given, but only one occurred in the sample. A modal range of bonus earnings for the semi-skilled men was also given.

Bus company: basic rates given by the firm. Some special rates exist (such as long distance coach journeys and payment for private hire trips) for which no information was available, but these would only apply to a few drivers, and then not all the time.

British Rail: a very complex wage structure naming more than a hundred different occupations, for which I was referred to the Ministry handbook, mentioned above.

Larger printing firm: information on basic wage rates supplied by the trade union representative who helped to select the sample. There was a productivity bonus which worked out on average at about 30% above time rates.

Information on shift allowances was obtained from the Ministry handbook in all cases except for the rubber factory. (In the printing firm, there was no shift

working). Information on overtime premiums was obtained from the same source. Obviously the difficulty of estimating piece-work or bonus earnings is the main source of error in this method of estimating earnings from data given by employers. For time-rate workers errors can only arise through:

1. Men describing their occupation incorrectly or ambiguously;
2. Men stating their working hours incorrectly or ambiguously - this is particularly likely to occur where working hours vary a great deal from week to week.

Having obtained an estimate of gross income from a man's main job, I then added his stated income from his second job, if any. Six men had second jobs; two were part-time barmen, two were in the Territorial Army Reserve, and two did odd jobs for friends. To obtain THP, the appropriate national insurance contributions and superannuation contributions, where applicable, were deducted (men stated what their contributions were to private pension schemes) and then it was necessary to make an estimate of income tax and deduct that.

Estimating the amount of tax relief, children's allowances, and of course the married couple's allowance, could be known from the rates laid down in the Inland Revenue's leaflet for taxpayers. Earned income relief was simple to calculate, once gross income was known. Superannuation contributions were assumed to obtain tax relief at face value. The only other category of tax relief likely to be

of any substantial size was mortgage relief, which had to be estimated by a rather complex procedure.

The interest rate on mortgages was assumed to be the rate prevailing at the time the mortgage was taken out. All couples were asked how long they had lived in their present house, and it was assumed that the mortgage dated from then. In the old questionnaire, couples were asked the duration of their mortgage, but since the answer was nearly always twenty years (with one exception) this question was dropped from the revised version of the questionnaire. Knowing the total period of repayment, the number of years the mortgage had already run, the assumed interest rate and the monthly payments, it was possible to work out the annual interest charges of the current year, on which tax relief can be claimed. In four cases, the amount of payments was unknown, so a guess was made on the basis of the date of purchase, type and location of the dwelling. Two couples had mortgages combined with life insurance policies; in these cases interviewers did not ask the amount of the policy payments, and the appropriate part of these couples' tax relief could not be estimated.

A further adjustment to the tax estimate then had to be made for the wife, if she was in an occupation where P.A.Y.E. was obviously not paid - that is, the four women who were domestic helps in private houses. It was assumed that in these cases, the tax payable on the wife's pay was deducted from the husband's income.

Having obtained an estimate for the total amount of income tax and other deductions paid by the husband out of his gross pay, it was possible to arrive at an estimate of



THP against which his statement of income could be checked. Three such estimates may have been wrong because the man's job description could not be identified with a particular wage rate. For example, one man said he was a crane driver, and railway crane drivers have different wage rates according to the size of crane they drive. A more important source of possible error is that it was sometimes difficult to assess the amount of overtime men worked on average. The questionnaire asked: "How many hours did you work last week? Was that a usual week?" The answers to the latter part of the question were sometimes vague; men made remarks such as "it's more before Christmas" or "we can't get much at the moment". Some men were interviewed during a week when they were off sick, or had been off because of a public holiday, and then they had to be asked how much overtime they did during the last full week they worked. This, of course, might not have been remembered exactly.

In nearly all cases, men gave their incomes rounded to a whole number of pounds. I therefore assumed that their statements corresponded to THP, gross pay or basic wage if they were within one pound of what I estimated that figure to be. The table below shows which of the estimated figures, if any, men's income statements corresponded to. The checking process was possible for 61 people. About half of these men stated their THP, 10 gave a range of income, which was difficult to interpret, 13 apparently misunderstood the question, and 8 deliberately under-stated their income.

Correspondence of stated income to  
estimated income

Stated THP .....	30
Stated range of income, within which estimated THP fell but not estimated gross pay or basic pay .....	3
Stated range of income within which both gross pay and THP estimates fell .....	7
Stated gross income .....	7
Stated basic wage .....	6
Under-stated income, i.e. gave an amount less than estimated THP which did not correspond to basic wage .....	8
Total for whom an independent estimate was made:	61

The tendency to understate income was much less than had been anticipated. In several previous community studies, it has been noted that wives are not told their husbands' incomes - suggesting that if the husband is asked his income in front of the wife, he may tend to understate income. All husbands except three were asked this question when their wives were present.<sup>4</sup> This rarely caused embarrassment; no-one refused to say what his income was, although two men were somewhat evasive (I have classified them as stating their basic wage, but they may have been deliberately concealing their overtime earnings, rather than misunderstanding the question). The only wife in the main survey interviewed without her husband knew only roughly what her husband earned (£16 to £20), but this vagueness may, of course, have been due to the fact that his income varied a lot, rather than to the fact that he did not tell her. It is possible that some of the men who gave a range of income were deliberately trying to be

<sup>4</sup> However, possible bias in the sample should be considered here. See p. 111 et seq.

vague because their wives were present, but all of them said it was difficult to give an exact figure because their overtime earnings varied so much.

It is interesting that out of the 8 cases where under-statement of income may have been made, there were two where the wife's mother was present, and one where the wife's father was present. There were altogether five cases where the wife's mother was present during the interview, and this factor did seem to make the husband somewhat inhibited and embarrassed; so that it is quite possible that some of the under-statements of income were due to a desire to forestall the mother-in-law's comments on the size of the housekeeping money. Another possibility is that informants may have been trying to stress to the interviewer how small was the income which they could rely on, so that the "under-statements" may have represented what these men would have earned if a minimum amount of overtime was worked.

The revised version of the questionnaire asked men to state their basic income in addition to their total net income. I inserted this question because I had by then given up hope of obtaining information on wage rates from all the companies approached. But it may also have had the effect of making the income question clearer. None of the men who were interviewed with the new questionnaire gave their basic wage.

In view of the fact that about half those men for whom the checking procedure was possible, gave their take-home pay as I have defined it, it seemed reasonable to proceed as if this was the meaning of the income statements

given by the men for whom no independent check was possible. The probability that their statements meant anything else seemed likely to be lower than it was for the rest of the sample, for the following reasons:

- (a) by coincidence most of the brewery workers were interviewed using the revised questionnaire, so that there was a low chance of them giving their basic rate;
- (b) none of the men for whom independent checking was impossible, gave a range of income;
- (c) most of the brewery men were semi-skilled process workers and most did 10 hours overtime. Thus one would expect their net incomes, if correctly stated, to be very similar, and indeed their stated incomes were very similar.
- (d) most of the building workers were not doing overtime, because it was winter, and therefore if they had given their basic wage instead of their total wage, it would have made little difference. (Most basic wages throughout the sample fell below the level at which the individual's income would have been liable to tax).

APPENDIX BMETHOD OF CALCULATING THE TRUE  
HOUSEKEEPING ALLOWANCE

In order to find the full value of a family's collective expenditure, it was necessary to find the value of items paid for by the husband apart from the housekeeping allowance given to the wife. The latter was known from the questionnaire, as were expenditure on all types of housing expenses except repairs and improvements, and hire purchase payments (including payments to clothing clubs) were also asked about. Thus, such items as fuel, furniture, clothing, children's pocket money and several minor items had to be estimated independently.

This was done by assuming that the family spend the same amount on any one of these items as the average expenditure for families of their income group and with the same number of children as given in the Family Expenditure Survey. The Family Expenditure Survey report for 1967 was used - the 1968 report would have been better, but it had not yet been published at the time I wanted to do this part of the analysis. All figures in the 1967 report were raised by 6% to allow for the increase in prices between 1967 and the period of the survey (the last few weeks of 1968 and the first quarter of 1969). Since items were estimated to the nearest 10p, the exact amount of the price increase assumed does not make much difference, most single items paid for by husbands were smaller than £2 in value. I did not, therefore, think there was much point in waiting until the 1968 report came out in order to do these calculations.

In the 1967 report, a full breakdown of expenditure by income groups and number of children was only given for the country as a whole. Expenditure patterns are a little different in Scotland. A "regional adjustment factor" can be defined by taking:

$$\frac{\text{average expenditure on item x by all Scottish families}}{\text{average expenditure on item x by all British families}}$$

Expenditure by families in each region is given by broad commodity groups in Table 34 of the report; details of expenditure by income and number of children in Tables 3, 4, 5 and 6. I used the regional adjustment factor to transform the figures in the latter tables into Scottish equivalents.

Each family in the sample was allocated to an income group on the basis of its total gross family income estimated as follows:-

Total family income = the sum of:

husband's take home pay, as defined in  
Appendix A

wife's stated income

family allowances

contributions by working children to  
the housekeeping money

The last item differs from the Family Expenditure Survey definition; the FES would include the entire income of working children. It seemed better to me, however, to use my different base for defining family income, as my interests were different from those of the FES. The level of contributions to collective expenditure made by the husband will be commensurate with his own income, and will if anything be reduced by the income of other family members.



Thus, if a man earns \$20 and his son \$10, counting them as a \$30 family instead of as a \$20 family will mean that expenditures by the son on clothing or electrical goods may be attributed wrongly to the father. On the other hand, if the son's contributions to the common kitty are excluded from the family income, it will be counted as having a smaller fund for essential collective expenditures than it really has, and this may lead to its non-food expenditure being under-estimated.

The following list gives the items in the FES which I took to be equivalent to the items of expenditure listed by the questionnaire:-

<u>Questionnaire item(s)</u>	<u>FES item(s)</u>
coal, electricity, gas	includes hire of appliances and "manufactured fuels"
clothing for yourself (wife)	all women's clothing plus half the footwear for 2-adult families, one third of the footwear for families with one child, and one quarter of the footwear for larger families
clothing for children	all children's and infants' clothing, plus one third of footwear if one child, half footwear if more than one
chemists' goods	"toilet requisites, cosmetics" (group 72)
medicines, dentists' fees	items 71 and 92
gardening expenses	"seeds, plants, flowers"
presents	half items 68, 69, 70, 72, 73
Toys	* half of item 70
Xmas expenses	* half of the items given under "presents" and half "toys"

\* an arbitrary guess was made here as to the division of such expenditure between Christmas and other occasions.

<u>Questionnaire item(s)</u>	<u>FES item(s)</u>
insurance	items 98, 99, 67
hairdressing	item 88
repairs, decorating	item 6
furniture	"durable goods" minus insurance and what the family way they spend on HP
saving up	items 100, 101. Anything else would be an uncounted residual in the FES
cinema tickets, other entertainment	items 84, 85
bus fares for wife and children	item 81, minus an estimate of what the husband spent on bus fares to work, which could be known from the obvious route which would be taken from the family's house to his place of work.

The above constitute all those items which the husband might pay for on behalf of the family as a whole, which could be estimated from FES data.

In some cases the following items were paid for by the wife for the husband, and must be subtracted from the housekeeping allowance to arrive at an estimate of total collective expenditure:-

car expenses	items 77, 78
visits to pubs	drink (items 44, 45, 46)
husband's clothing	items 51 and 52, plus a share of "footwear", calculated as for the wife.

Some items which the husband might pay for could not be calculated from the FES. These were: the television rental and children's pocket money. Some families gave the amount of the television rental they paid under the hire purchase question. There were 8 who rented a tele-

vision set but did not give the amount under that question, and of these 4 rentals were paid by the husband. In these cases it was assumed that the rental paid was the same as the average amount paid by families whose rental was known - 75p.

The estimation of children's pocket money was rather more complex. I used a scale derived from an article by Hilde Behrend (1966), which quotes a school-teacher's assessment of the amount of pocket money given to school children in "an industrial area" of Edinburgh in 1968. Hilde Behrend's informant thought that children aged 10 would receive between 7s. 6d. (37½p) and 10s. (50p). Using this yardstick, I postulated the formula of  $(n-1)$  shillings per week for each school child, where  $n$  is the number of years of age. This seemed rather low for twelve to fifteen year olds, so I then added an extra two shillings (10p) for this age group. In the few cases of children over fifteen who were still at school, I assumed that they received the same as a fifteen year old, i.e. 16s. (80p). Working children and children of three years or less were assumed to receive no pocket money. Four and five year olds were assumed to receive one shilling (5p) each. (Obviously children under school age must receive hardly any pocket money, as they are not old enough to go shopping by themselves). It must be emphasised that this way of estimating pocket money is very much guesswork. However, it seems reasonable to assume that there are local norms about how much children receive, which would be disseminated by means of children demanding

from parents the same amount as their school-mates.

Hardly anyone in the sample said they made any expenditure on window-cleasers, drink to keep in the house, or betting.<sup>1</sup> I therefore ignored these items.

<sup>1</sup> They may have deliberately not admitted they spent money on this.

APPENDIX CCASE STUDIES

In order to clarify the foregoing analysis, it is useful at this point to describe a few cases which comes fairly close to the "pure types" of the A and P housekeeping systems. (Families have been given fictitious names).

Case 1:Mr. & Mrs. Jamieson: P-type

Mr. & Mrs. Jamieson present a good example of a P-type couple. Mr. Jamieson worked as a shunter on the railway - he had had a variety of railway jobs ever since he finished National Service. They had moved to a suburban council house after owning a small flat in a central tenement district for the earlier part of their married life. Mrs. Jamieson had a full time job cooking school dinners. She paid all the household expenses out of her £12 per week housekeeping money plus her own wages, which were £8.25, and a small contribution from her eldest son, who was an apprentice plumber. Mr. Jamieson's wages varied on a three-week cycle of shift work, and correspondingly different overtime arrangements; on average he earned £16.35 after tax and national insurance. (He hesitated a good deal before telling me anything about his wages, then told me his basic hourly wage rate and explained the shift-working and overtime cycle). Mr. Jamieson kept over £4 for himself some weeks; the regression equation referred to earlier which describes the relationship between income and housekeeping money in the sample as a whole, would predict that he kept £4.50, so this was fairly typical. All of Mrs. Jamieson's earnings

went "into the house", i.e. were put with the house-keeping money. When asked "Is the amount he gives you flexible at all? - do you ever run out before the end of the week?" she merely said "touch wood". Mrs. Jamieson kept stressing that she was very careful to manage on what she had; "Most couples get into too much debt; I don't take debt on much - I try to save a bit". She had no hire purchase commitments. She did not save for any particular purchase: "I keep a bit of money in my pocket for emergencies". When asked: "Do women have different ideas about money from men?" she said: "Women lead, but men agree" - in other words, budgeting is a woman's job. Her husband worked on average 45 or 46 hours a week. He objected to the fact that the recent rise in family allowances had entailed a "cut in wages" for him - that is, a reduction in the tax allowances for dependent children (of whom they had two, not counting the working son). As Mr. Jamieson worked a three-shift system he had little opportunity for social life, and therefore spent his spare time watching television; but his wife said: "He goes out for a drink now and again". In talking about her spare time activities, she stressed the domestic side of her life - "I knit, and bake. I don't like bingo. It's a pity there are no theatres any more in this city." (Presumably she referred to music-halls and such like, as "highbrow" theatrical entertainment is certainly available in Edinburgh, and there are many cinemas). Mrs. Jamieson had friends at work, though they did not exchange visits or go out together. Mrs. Jamieson's father was present at the interview - he had



been a ship repairer. She did not mention any other relatives except her mother, who was dead. Mr. Jamieson's father was a miner. Mr. Jamieson was a bit reticent, and did not talk about his friends or relatives. He seemed a bit surprised that I wanted to talk to him about the topics covered by the questionnaire, as if to imply that family budgeting was his wife's business. The Jamiesons did not have a car or a telephone, nor any fitted carpets, nor a dining room suite. Nor did they want anything in the way of consumer durables. Mrs. Jamieson's notion of luxuries is indicated by what she said she spent her earnings on - "a wee bit extra for the children - a wee bit of luxuries in the house; we put more on the table, and we always have a fire." She wanted to make sure that her children had a good future; the second son was already planning to stay at school until he was seventeen, and take his "Highers"; and she wanted the youngest "in a trade" (a term used by many of the informants in the survey to mean a skilled job involving an apprenticeship, as distinct from semi-skilled factory work, which they frequently described as "labouring").

Case 2:  
The Macdonalds

The Macdonalds provide another example of the P-type. Mr. Macdonald was a semi-skilled machine operator in the rubber factory. Mrs. Macdonald had recently given up her job as a nursing auxiliary, because she found it depressing to work with very sick people. She implied that

she had needed the money when she took on that job, but that she did not need it so badly now that she could not wait until she found a job she liked better.

They rented a four-apartment tenement flat near the city centre. The rent was only £6.25 per month, although they had to pay the annual rates bill of £43. When first married they had lived in a smaller flat not far away, but that had been demolished. They had three children, all at primary school.

Mrs. Macdonald received £15 from her husband - it varied a bit with his overtime earnings, and he kept "a bit of pocket money". (I think a fixed amount, in view of their joke about family allowances: these went up shortly before the interview, with a corresponding reduction in tax allowances and Mrs. Macdonald said "We've been wondering if he should get a pay rise"). She emphasised that he gave her most of his overtime money, as if this might be unusual, and said that it was used to buy furniture. She had just started buying a bedroom suite for the children, but was careful to restrict her hire purchase commitment to £1 per week "in case he's ill". The only other thing she wanted for the house was a dining room suite: like the Jamiesons, they had neither car nor telephone, and expressed no desire to have either. They did, however, have fitted carpets and an electric sewing machine. Mr. Macdonald worked a two-shift system, days and nights on alternate weeks. He worked as much as 52 hours when he could, though this was not often because trade was very erratic for his section of the factory. It had been affected by strikes elsewhere, so that in the

last month or two he had worked little overtime. Lately he had been earning about \$16 per week after tax.

Before her marriage Mrs. Macdonald had worked in factories, which she disliked: "I want the bairns to have decent jobs - not working in factories like we've had to do. The eldest boy is good a figures - I'd like him to use that". She went back to work when the youngest was three. She emphasised several times that they had been under considerable financial pressure; that she could save only a very little as an emergency reserve, even now; and that a family like themselves needed \$25 per week. She said it would definitely be necessary for her to work in the long run. She had spent most of her earnings on furniture; the "single end" (one room flat) which they had lived in before had not held much furniture, and so more had to be bought when they moved. She implied that she wished she could have spent her money on other things: "I didn't get anything out of it except maybe the washing machine and Hoover - just things for the house". (This may confirm my hypothesis that P-type couples, particularly the lower-paid, have individualistic consumer aspirations). She was very contemptuous of people who spend a lot of money "keeping up with the Joneses".

Neither Mr. nor Mrs. Macdonald's parents were still alive; although Mrs. Macdonald was friendly with her sister, a widow. Her husband went out to football matches on Saturday, and on Saturday evenings he went out for a drink. She said: "Once or twice a year we have a night out with his mates". They also had his "mates" to visit

them sometimes. Otherwise they had no joint friends; they spent their spare time watching television and decorating their flat. Mrs. Macdonald said at first that she "didn't see much of the neighbours". But later on in the interview she mentioned instances of practical co-operation with them. She had offered an elderly bachelor help with cleaning his flat, which he had refused. She also helped another woman on the stair tidy up the back green so that the children could play there, after one of the Macdonald children had been knocked down while playing in the street.

Case 3:  
Mr. & Mrs. Allen

The P-type system of one of the control couples is the one which in all the sample perhaps most corresponds to the model of the P-type that I have outlined.

Mr. Allen, a turner, had one son, aged 21. He himself must have been in his late fifties or early sixties (he said that if he were made redundant, he would retire early). His wife did not work; he emphasised that he earned enough to keep her, and disapproved strongly of women working, unless they really had to (an unusual attitude in the sample, perhaps partly attributable to his membership of an older generation than the others). He gave his whole wage packet to his wife, who opened it and gave him back his personal pocket money. His son also put £3 or £4 into the housekeeping money and ran a car which the parents sometimes used. The father sometimes contributed towards the expenses of his son's car. The son had been in the police force, but was now apprenticed

to a butcher. Although Mr. Allen gave all his wages to his wife, he did not want to tell the interviewer what they were. He usually worked 50 hours a week, but sometimes the foreman asked him to do an extra eight hours on a Sunday too, which he disliked, although he was obliged to do it. Ideally, he said, he would only work 40 hours; if he had a pay rise he would cut down on overtime. The Allens had a more lavishly equipped home than the two couples already mentioned; they had fitted carpets, a dining room suite, and venetian blinds, although they had no fridge or telephone. They had all they wanted in the way of durable goods, and thought that most people of their age could afford what they wanted in this respect. In the "bad old days", they would borrow from relations or neighbours, but they had no need to now. Mr. Allen had a savings bank account, though commented that most of his workmates had not. His friends and his wife's friends were completely separate - her main interest was a bowling club, he played in a pipe band with his son, and spent a good deal of time practising. The Allen family were Catholics, although they had no apparent Irish connections.<sup>1</sup>

Case 4:

Mr. & Mrs. Gordon

Mr. & Mrs. Gordon provide an example of the A-type system. He was a bricklayer - she did not work, but made a little money by holding "Tupper parties". Her father

<sup>1</sup> c.f. the similarity between their way of life and that of Humphreys' "New Dubliners".

was a T.V. mechanic, his father worked in a rubber factory. She had done three years' training to be a nurse, but never took up this career because of her marriage. She loved her work, and wanted to go back to it soon, although she could not do so yet because of her baby son. Mr. Gordon had studied maths and technical subjects at evening classes for four years after leaving school. They were buying their three-roomed tenement flat, but were not satisfied with it; they would have liked a house in the country with a garden and bathroom, but could not afford it yet. They were saving up for a better house, and this meant that Mr. Gordon had to work very hard. They did not "get on very well" with the neighbours, who, Mrs. Gordon said, were "always fighting their husbands". Mr. Gordon gave his wife £8 per week, out of a wage of £19 after tax and national insurance, but he also paid the mortgage, rates and fuel bills, and provided money for furniture and decorating. He had about £4.40 left after this. If she needed it, he gave his wife a couple of pounds extra. They were buying a car on hire purchase, which cost £10 per month out of his pocket money. Saving was mainly Mr. Gordon's responsibility, though it was a joint effort in the sense that Mrs. Gordon tried to keep down the amount she needed for housekeeping, so that he could save as much as possible. Over the last year they had "saved and spent" about £150, which was for bills, a new television, re-wiring of the flat, and new plumbing. Their net saving during this year, towards a new house, had been about £30. Mrs. Gordon had a bank account as well as Mr. Gordon. They



wanted a washing machine, but otherwise had most of the things which Mr. Allen and his friends had taken most of their working lives to acquire.

Mr. Gordon went out to the pub twice a week, and played darts there; his wife did not go, probably because of the baby. She had kept in touch with many school friends and other student nurses, with whom she exchanged visits. She said her husband knew them all, so that she didn't really have a separate female circle. They had other joint friends to visit them, who were not his workmates, Mr. Gordon said. In another part of the interview, he mentioned that one of his friends was an architect, and another a draughtsman.

Mr. Gordon did no overtime at the time of the interview, because overtime was not available in his trade in winter. He wished he could work longer hours to get money for the new house they were thinking about. However, he was trying to make as much as he could out of the piece rate system, to make up for the lack of overtime work. Mr. Gordon said that if he had a pay rise he would save it. If he had shorter working hours, he would play with the baby, read, and "do up the house" more, as well as watching T.V.

Case 5:

Mr. & Mrs. Lindsay: an A-type example

Mr. Lindsay was a compositor; his wife did not work, although they fostered a child, which brought in a bit extra money. They had two grown-up children; one had left home; the second, a typist, still lived with them. They

They also had one child at primary school, and the foster-child was about the same age. Mr. Lindsay was from the Borders, Mrs. Lindsay from County Durham; they had lived in two other towns before settling in Edinburgh. Mrs. Lindsay had been a Civil Service Clerk before her marriage; she had not worked since. She had become a foster mother because she liked children, not because she needed the money. They owned a four-apartment tenement flat, and said they were happy with it on the whole. Mr. Lindsay gave his wife £8 for housekeeping, and, like Mr. Gordon, he paid the mortgage, rates and fuel bills. In fact, he paid for all household expenses except for food and clothing; Mrs. Lindsay bought clothes for all the family including her husband. Mr. Lindsay had a savings bank account; they also kept a pool of money in the house for irregular expenses, and Mrs. Lindsay said that if she ran short during the week she would take some extra money from the "pool". Saving was a joint responsibility; they had saved up to visit relations in the U.S.A. the previous year. They had nearly all of the commonly owned durable goods except a telephone and fitted carpets, which they wanted. They ran a car. They had friends whom they had met through their church, and through being foster-parents; and they exchanged visits with them occasionally, as well as taking part in church activities. Mr. Lindsay also liked fishing. But they did not go out much, and said that most of their friends were kept busy with the husbands' overtime working. Mr. Lindsay worked 50 hours the week before the interview, the maximum amount of overtime available in his firm. He said

he was working particularly hard at the moment because he was saving up for their holiday, but that even usually he worked at least six hours overtime. (This was a lot for the printers in the sample; the median number of hours amongst them was 44 per week). Mr. Lindsay earned £26 per week after tax and national insurance. If he had a pay rise, he would give it to his wife for housekeeping, or save it. If he had more spare time he would go fishing more often, or work in the garden which they shared with other occupants in their tenement. Mr. Lindsay's father was a postman, Mrs. Lindsay's a miner. Neither of their mothers had worked after marriage. They thought that education was a very important thing in life. When asked what sort of job he would have chosen if he could go back to being 14 or 15 now, Mr. Lindsay said he would have done "something mathematical". When asked whether he had any idea about what he wanted his younger son to do when he left school, Mr. Lindsay saw this question in terms of his son's further education: "I would encourage him towards science and maths, but it depends how he develops". When asked: "How do you decide what class people are in - what social standing they have?" Mr. Lindsay and Mrs. Lindsay both said "Education", though Mr. Lindsay thought this was not so important as it used to be. Mrs. Lindsay thought that having interesting work was very important; it was all right for married women to work "as long as they find it interesting"; and to the question: "What do you think people generally go for when they think what sort of job

they would like to have?" she said "Come go out for the money, but I don't think they are happy". Education, perhaps not surprisingly, was highly valued by these employees of an academic publisher; another printer in the sample said that, given another chance in life, he would have gone into academic research.

APPENDIX DUNUSUAL HOUSEKEEPING SYSTEMS

Two couples in the main sample, and one amongst the younger controls, said that they pooled all their income. In all three cases, the wife was working. Here nothing is known about how expenditure responsibilities are allocated between husband and wife; the husband must presumably use some of his income for personal expenditure, but no distinction was made by these couples between funds for different purposes in their description of the system. This pattern was found to be common amongst the middle-class couples surveyed in the Edinburgh "Life Styles" study (Burns, 1969) - in fact it held about equal sway with the allowance system. Two of the three couples who employ the pool system in this sample are middle-class in orientation - they say that their friends are mainly white-collar workers, both are owner-occupiers and one of the wives followed a professional occupation. The third lived in a council block and mixed mainly with their neighbours there, whom they described as "tradesmen". All three husbands were printers (one a compositor, one a camera operator and one a printer's reader): the latter two occupations, by virtue of their highly technical nature and high pay, may be considered marginal to the working-class. All three couples were fairly young; none had a child older than eleven. The "pool" system seems to be something distinct from either the A-type or the P-type, perhaps generated by particular social circumstances, and I have therefore excluded it from the analysis.

Under the heading of the P-type I have included two cases in which the husband hands over the entire contents of his wage packet to the wife, and receives pocket-money back. One such case consists of a middle-aged couple in the control group, so that there is only one in the main sample. One interpretation of this system, (which I shall refer to as the "whole wage" system) is that the wife in such cases has charge of what I have called the first-level decision; it is possible that she decides how much pocket money the husband shall keep. If it is the husband's pocket money which is fixed, rather than the housekeeping allowance, it will be the latter which varies with overtime earnings; the effect of what Friedman (1957) would call "transitory income components" will be entirely on collective expenditures. This may be an important feature of systems in which the husband's pocket money is a fixed amount. But such a feature may not be exclusive to the whole wage system; some P-type cases could have it too. (Statements such as "he keeps about £2" occurred in a few interviews; these could refer to fixed pocket-money amounts, or to what the husband kept out of a typical week's earnings).

Alternatively, it is quite possible that the whole wage system is in no way different from the pocket money system, in which the handing over of everything does not occur. It may be that the handing over of the wage packet does not signify that the wife has control of the initial allocation of income to housekeeping money and the husband's retentions. It could, as suggested in



Chapter 3, be just a ritual whereby wives are assured that their husbands are playing fair,<sup>1</sup> perhaps a relic of an earlier age when, so some writers suggest (c.f. Chapter 3), a wife was privileged if she knew what her husband earned.<sup>2</sup> Certainly this is no longer a privilege, nearly all of the husbands in the sample were quite open about stating their wages in front of their wives, and most gave a figure at least as high as my estimate (from their employer's wage rates) of their total net pay including overtime earnings.<sup>3</sup>

Moreover, in speaking of the amount of house-keeping money they received, several wives mentioned spontaneously the amount their husbands kept. It is not possible to say whether the handing-over practice is associated with a greater degree of control by the wife in the housekeeping system. As stated, it may or may not entail that she decides how much pocket-money the husband should have, by contrast with the other systems (A-type, P-type, and "pool") in which the primary allocation of resources seems to be a joint or a husband's decision. There is no reason to suppose that

<sup>1</sup> The wage packet may not be handed over un-opened; as one woman said: "there's always a few bob the woman's no' supposed to ken about".

<sup>2</sup> Griselda Rowntree (1954) states that before the birth of their first child, 71% of couples employed the whole wage packet system in an Aberdeen sample of working-class families, interviewed in 1951-2. A large proportion still did so after the birth of their first child. It is possible, therefore, that the system was very common in Scotland until recently. Kerr, however, (1958) states that it was a declining practice in Liverpool in the early 1950's.

<sup>3</sup> The issue of how valid were the men's statements of their wages, and the methods of estimating their pay from the firm's wage rates, are dealt with in Appendix A.

the "whole wage" husbands kept less pocket-money than the P-type husbands. In any case, they are too few to form a separate category for analysis. I therefore decided not to exclude them from the P-type group.

CHAPTER 6FINDINGS ON THE FAMILY'S  
SUPPLY OF LABOUR

In an earlier chapter I considered some questions posed by previous economic and sociological literature, concerning the family's supply of labour to the market. The purpose of this chapter is to find out what are the determinants of the family's supply of labour according to the survey data; and how these results compare with other writers' findings.

The general plan of this chapter is divided into a number of sections, following on from the issues raised in Chapter 2. They are as follows:-

- (1) a consideration of the relationships between husband's overtime working and housekeeping arrangements;
- (2) the other determinants of the amount of overtime worked by husbands.
- (3) the use of the wife's discretionary labour power.

In order to examine how the variables mentioned in Chapter 2 affect the utilisation of the family's labour power, I feel it is necessary to perform an overall analysis of the determinants of labour power utilisation decisions, not all of it having particular reference to the hypotheses proposed in Chapter 2. Unless this is done one can have no idea of the relative importance of the variables identified by these hypotheses, or with what other variables they may be associated. The reader must therefore forgive a certain amount of matter which may seem on the surface of it irrelevant, but which is in

fact necessary to obtain a thorough understanding of the relationships which the data exhibits.

1. Labour market participation and house-keeping arrangements

In Chapter 2 I argued that labour supply decisions within the family cannot be said to be made with regard to the maximisation of a joint utility function. This argument must now be expanded. Firstly, the notion of a joint utility function in this context, as put forward by Fleischer and others, seems to assume that all family income is pooled for the purchase of goods and services for the family as a whole. But from the sociological studies cited in Chapter 3 <sup>it appears that</sup> that some of a wage-earner's income (particularly in the case of the husband and children) tends to be reserved for personal consumption, which may provide utility only for the wage earner. The second objection to the idea of a joint utility function is that leisure is to a large extent a personal utility. Except in so far as wives demand their husbands' company and vice versa, it can only give satisfaction to the person who actually has the leisure time to spend. These two points lead one to speculate that in almost all families, there will be at least an element of individualism in the way in which labour supply decisions are made. In the light of the last chapter, one may suggest that the extent to which the individual will make such decisions with regard to his individual interest (in leisure and personal consumption), rather than with regard to the interest of the family as a whole, will depend on the family's life style. In particular, it may depend on the degree of segregation of the role relationship - an issue which I shall discuss shortly. It may also depend on the importance placed,

in the couple's particular social milieu, on the house and home as a centre of the individual's activity. Members of home-centred families will tend to see collectively consumed commodities (house, furniture, electrical goods) as relatively important in their life style, and important in the range of goods on which marginal earnings may be spent, that is, for the sake of which extra hours may be worked.

I have provided in Chapter 5 some evidence that the P-type system goes together with a considerable degree of economic individualism. P-type households have a life style which places less importance on the acquisition of expensive possessions for family use than does the life style of the A-type couples. This means that one might expect to find P-type husbands, when making labour supply decisions, considering more their personal need for marginal earnings, and less the family's ambitions as a consumer unit (since these ambitions are less extensive) than do A-type husbands. A man who weighs up the marginal utility of leisure against the marginal utility of extending his personal expenditure, will surely tend to place a higher value on leisure than a man who sets leisure against the utility of major purchases for the family as a whole. This is simply because the commodities on which husbands spend their pocket money have a low income elasticity of demand; commodities like lunches at work, cigarettes, alcohol, and fares. The exception, of course, is a car; although it must be noted that whilst this commodity, like other durable goods, has a high income elasticity of demand on a macro-economic level, the individual who already has a car will tend to regard it as a fixed expense, just like fares

to work. The only variable kind of expenditure associated with cars once bought is, in fact, expenditure on petrol (i.e. the amount of use made of the car).

Considering the kind of marginal expenditure which the P-type husband may be expected to have in mind when making labour supply decisions, one would therefore expect him to have a lower "marginal propensity to work" than the A-type husband. That is, one would expect P-type husbands to take less advantage of overtime opportunities (a point on which the survey data provide evidence) and also to be more likely to reduce his working hours in response to a wage increase (a point which is not investigated by the survey).

It comes as no surprise, therefore, to find that amongst the skilled workers in the sample, A-type husbands work longer hours than P-type husbands, as shown in the table below.

<sup>1</sup> I have controlled for skill level firstly because it is the most important variable influencing the level of overtime hours (as shown in the next part of this chapter) and secondly because this being so, one would expect the effects of skill level and house-keeping system on overtime hours to cancel each other out. Skilled workers do less overtime than the unskilled; so that if there is a tendency for the A-type men (many more of whom are skilled than P-type men) to work long hours, this tendency will be hidden in the sample as a whole by the skill factor.



Table 1

Housekeeping system, skill level,  
and hours of work

	Skilled Workers		Total	Unskilled Workers		Total
	A-type	P-type		A-type	P-type	
Works less than 10 hours overtime	7	7	14	5	19	14
Works 10 or more hours overtime	10	1	11	10	21	31
Total	17	8	25	15	30	45

Note: This table is for all men with children who can choose how much overtime they work, and whose overtime hours and housekeeping system are known.

The Q-value of this association between housekeeping type and overtime hours for skilled workers is 0.82. (Fisher's exact test shows that the association is significant at the 99% level of confidence. Obviously, the reason why no association between the housekeeping system and overtime appears in the sample as a whole is that the skilled workers in the sample do less overtime than the unskilled, and yet a larger proportion of the A-type men are skilled than the P-type men. The effects of skill level and the housekeeping system therefore cancel each other out in the sample as a whole.

Why does the association between housekeeping system and overtime occur in the skilled but not in the unskilled group? The explanation which must first be considered is that there is a greater pressure upon unskilled workers to do a lot of overtime, because their basic wage is lower. If

many of them do at least 10 hours overtime for financial reasons alone, one should investigate whether the housekeeping system accounts for exceptionally long hours being worked. But reconstructing the table with the dividing line put at 14 hours overtime instead of 10 still finds no association in the unskilled group. The average number of hours worked by unskilled P-type men is 13.8, and by unskilled A-type men 14.3. There is, therefore, only a very small difference between the two housekeeping types in the unskilled group. Can this be explained in terms of the preceding arguments about the possible effects of economic individualism? If these arguments are correct, one would expect that the difference between A-type and P-type men in the amount of overtime they do, would be most marked where owner-occupancy and extensive consumer ambitions are most likely to be economically practicable - that is, amongst the skilled workers, since they have higher basic wage rates than the unskilled. It may be, therefore, that at the income levels accessible to the unskilled workers, no substantial difference in work effort arising from the housekeeping system should be expected. This explanation, however weak, is the only one which I can offer as to why the association between the housekeeping system and overtime is not apparent amongst the unskilled workers.

I now turn to the question of whether couples with segregated role-relationships are more likely to be individualistic in making labour supply decisions. One needs to be careful in formulating hypotheses about the nature of the relationship between individualistic de-

cision-making and degregated role-relationships. To suggest that these two phenomena may be associated would apparently be to say that people with segregated role-relationships are more self-interested. Yet this would be to fall back into the trap of the many early studies on working-class family budgeting referred to by Michael Young (1952), to think that the traditional working-class husband is selfish because he is apparently detached from the process of making decisions about purchases, and because there tends, in such families, to be a rigid distinction between the housekeeping allowance and the husband's pocket money. Rather, the point to be made is that where the responsibilities of husband and wife to the family economy are rigidly defined, and where the area of joint decision-making, in economic and other matters, is small, it is highly likely that the potential utility of extra income to the family as a whole will be ill-defined. That is, there will tend to be little in the process of everyday communication between husband and wife which facilitates the formation of joint ambitions for major purchases. Thus, the husband may tend not to have any picture of things which could be bought for the family with marginal earnings, and will tend to weigh up the utility of marginal earnings only in terms of what he, personally, might spend them on. Moreover, the family's conception of his role as breadwinner may confer on him an obligation to maintain the household at a conventionally appropriate standard; how much he should work may depend not upon what the family wants as a group of individuals, but rather upon what is thought a decent and proper housekeeping allowance.

(It may be significant in this context that whereas both Shaw and Dennis et al cite some evidence of local norms as to what the housekeeping allowance should be amongst "traditional" families, Zweig, speaking of the "affluent" working class, finds a good deal of variation between families both in the amounts given and the items intended to be covered by the allowance).

Owing to the failure of the survey data to identify types of conjugal role relationship, I am unable to test these hypotheses. In the last chapter, I argued that the A-type housekeeping system is probably associated with a home-centred, "affluent" type of working-class culture, and the P-type system with a "traditional" culture. As I stated in Chapter 5, the survey data do not provide any evidence for a link between the housekeeping system and the type of conjugal role relationship (but neither does it provide any evidence that there is no such link). In fact, the survey data provide little information on the conjugal role-relationship itself, so that I am really unable to investigate the effect which role-relationships might have on labour supply decisions. However, it does seem plausible that the association between segregated conjugal role-relationships and "traditionalism" entails that the P-type system, too, is associated with this type of role-relationship.

#### The negative income effect

In Chapter 2, I suggested that the utility which a worker obtains from marginal earnings (R.M.E.) may be affected by the distribution of marginal income within the family. I therefore suggested that certain types of house-

keeping arrangement providing a low R.M.E. for the husband, would predispose him to work less hours when his wage rate was increased.

Studies over time, involving responses to wage increases, would obviously be the only conclusive way to establish determinants of the negative income effect. But the static data available here can at least provide us with a plausible hypothesis. Money - i.e. income - is only desirable for most individuals as a means to exchange. The individual's reward from marginal earnings is seen in terms of goods. Consequently, how much he wants to work for more money will depend on how badly he wants to extend his range of purchases. It has already been pointed out that P-type husbands are less materially ambitious than A-type husbands, spend their pocket money on goods for which there is a low elasticity of demand, and are less likely to devote their overtime earnings to household purposes. They are also less likely to be involved with their wives in joint saving for household purposes. It seems likely, therefore, that P-type husbands are much more likely to exhibit the negative income effect than A-type husbands, although in order to show this one would need to conduct a longitudinal study on people's reactions to wage rate changes.

Summary of findings concerning the effect of housekeeping arrangements on overtime working

In Chapter 2 I put forward the hypothesis that the use made of the family's discretionary labour power will be determined not with reference to the family's total needs, (perceived through discussion with other family members or through consensus derived from social norms) but with



reference to the individual's subjective perception of the benefits he will obtain from the collective and personal uses of his earnings. This would mean that the way in which income from different sources is allocated to different uses in the family budget, may have incentive or disincentive effects upon the individual's use of his or her discretionary labour power. But, as shown in this section, it turns out that the effect of the distribution of income within the family is much more subtle than any individualistic incentive effect of the kind postulated by Brennan (op.cit. 1959), Millward (op.cit. 1968) or Shimmings (op.cit. 1962). P-type husbands, are less likely than A-type husbands to give their wives a housekeeping allowance which includes overtime earnings, and have a fund more strictly reserved for their personal expenditure than do the A-type husbands (whose "pocket money" is interchangeable with some collective expenditures), so that they appear to have a greater incentive to work overtime than the A-type husbands. But in practice they do not, because of the low income-elasticity of demand for the commodities on which the husband spends his pocket money. (See Chapter 5). It seems likely that A-type husbands, on the other hand, participate with the wife in making decisions about collective expenditures to a much greater extent than P-type husbands. If so, the proportion of expenditures for collective purposes of which the husband approves and in which he has an interest, is likely to be larger with the A-type housekeeping system than with the P-type system. Moreover, a larger proportion of A-type couples are owner-occupiers, and the A-type couples also



have ambitions to purchase durable goods which are extensive relative to the ambitions of the P-type couples. Consequently, there is a range of goods and services with a high income-elasticity of demand on which the husband's marginal (overtime) earnings can be spent, and this apparently does act as an incentive to do overtime, at least among the skilled workers.

## 2. Determinants of the amounts of overtime worked by husbands

This section attempts to place the findings of section 1 in a more general perspective; it examines a number of determinants of the level of overtime working, so that the effect of the housekeeping system may be seen in its context.

### Methods of analysis

In order to see the apparent effects of the housekeeping system on the use of discretionary labour power in their proper context, it is necessary to build up a fairly complete model of the factors affecting overtime and the interaction between them, and to compare these factors with the ones identified in other similar studies. In order to build such a model, analysis of variance would be the best tool of analysis. But the assumption of independent random samples would not be valid for the comparison of sub-groups from the sample;<sup>2</sup> and, moreover, the distribution of overtime hours is not normal, it is bunched around the lower figures, with a long tail trailing off to a maximum figure of 30 hours. Another possibility is to compare the median overtime hours of the sub-group having some particular characteristic with the median overtime

<sup>2</sup> Except for sub-groups divided by employer, such groups would not be independent, and, as stated in Chapter 4, it is doubtful whether the sample is truly random.

hours of the rest of the sample. But this leads to difficulties if, by examining the determinants of over-time within sub-groups, one deals with smaller and smaller groups of cases, till the median is no longer meaningful measure. The third alternative is the crude, but versatile, Q-test. As this works reasonably well even with very small sub-groups, I decided again to use a variable tree based on Q-tests. This required setting up contingency tables of the form given below:-

	Work less than 10 hours over- time	Work 10 or more hours overtime
Have characterstistic (e.g. is a skilled worker)		
Do not have characteristic		

Ten hours overtime was chosen as the criterion value in such tables because it is the median number of overtime hours for the sample as a whole.

Since very few variables, apart from skill level and employer, give high Q values at the level of the whole sample, the medians were calculated for various sub-groups to see which variables were worth testing for incorporation into a variable tree.

Whether to treat employer as a determinant of overtime raised a difficult problem. At first I tried to avoid it by setting up an index which measured each man's hours relative to the median or mean hours of all those in the sample working for his employer. But such an index would have been rather meaningless for individuals from those

firms poorly represented in the sample, since a median or mean calculated from two or three cases has little meaning. However, it appears that variations in hours due to skill level are much larger than those due to differences between employers (see Table 2 below) and, moreover, that a large part of the differences between firms can be explained by the proportion of skilled workers in each firm.

Table 2

Skill level and amount of  
overtime worked

	<u>Skilled</u>	<u>Unskilled</u>	<u>Total</u>
10 hours overtime or more	12	31	43
Less than 10 hours	18	14	32
Total	30	45	75

Notes:  $Q=0.54$ :  $\chi^2 = 6.14$  : significance is obtained at the 97.5% confidence level.

This table includes all men with children who can choose how many hours they work.

Table 3 shows the median hours worked by the sub-sample from each firm, and the number of skilled workers in each such sub-sample.

Table 3

Overtime hours and the Proportion of  
Skilled Workers in Different Firms

(a) Men who can choose how much overtime they work, excluding firms represented by less than five men in the sample:-

<u>Firm</u>	<u>Median hours overtime</u>	<u>Number of men</u>	<u>Number of skilled workers</u>
Gas Board	17.33	8	5
Rubber Factory	13.00	13	4

<u>Firm</u>	<u>Median hours overtime</u>	<u>Number of men</u>	<u>Number of skilled workers</u>
Brewery	10.00	14	2
British Rail	10.40	11	9
Bus Company	21.00	10	0
Larger Printing Firm	3.60	<u>9</u>	<u>7</u>
All these firms	10.40	65	27

(b) All firms in the sample, excluding those who cannot choose how much overtime they work:-

All men	10.50	79	
Skilled workers	9.24		33
Unskilled workers	12.20	46	

- Notes:
1. The firms which are represented in the sample by less than five men are excluded from the first part of this table, since the data for them would really be meaningless.
  2. Men who could not choose how much overtime to work were excluded. This cuts out the only two "controls" (with no children) in this sub-sample.
  3. Four men's overtime hours were not ascertained because they were ill or on holiday the week preceding the interview.

There is a tendency for the amounts of overtime worked by the company sub-samples to be inversely related to the proportion of skilled workers. This is particularly true at the extremes of the working-hours range; the printers, doing least overtime, are nearly all skilled workers, but the busmen, who do most overtime, are all unskilled. The brewery is rather out of line with the other firms, with a median figure of 10 overtime hours worked, but very few skilled workers. This may be because several of the men in the sample went onto a "consolidated wage" system during the survey period, whereby overtime was reduced as part of a

productivity deal. (I have considered these people as amongst those not free to choose how much overtime they worked, for the purpose of further analysis. They were offered a package deal of 10 hours compulsory overtime in return for an increase in the basic wage).

All except one of the employer variables, despite the relatively high Q-values which they produce when tabulated against overtime (see Table 4 in the next section) shrink into unimportance as determinants of overtime within the skilled and unskilled groups respectively. Within the unskilled group, those who work for the bus company work particularly long hours, and so this variable does appear in the variable tree.

Determinants of overtime: summary and comparison  
with Prices and Incomes Board findings

The variables which produced any noticeable differences in overtime hours are listed in Table 4 below. Some of the variables included in this table are variables which one would expect to make some difference to the amount of overtime worked, but which in fact make very little difference, such as hire purchase commitments, do-it-yourself work interests, being a large-scale owner-occupier (which means heavy financial commitments) and also the housekeeping system. I have already pointed out, in the first section of this chapter, that the housekeeping system is strongly associated with the amount of overtime worked by skilled workers, although it is not associated with overtime in the sample as a whole. It is possible that a number of cultural characteristics are, in the same way as the housekeeping system, associated with skill level in such a way that their effect on overtime is

cancelled out, in the sample as a whole, by the effect of skill level on overtime. I therefore decided to include in the tests made to establish the variable tree, both the housekeeping system and other variables which are found to influence overtime working in another study. Several of the variables listed in Table 4 were suggested to be of importance in what is probably the most important British study on the factors affecting the amount of overtime men do - the Prices and Income Board Report: "Hours of Work, Overtime and Shiftworking" (December 1970). This contains the result of a survey of establishments concerning the incidence of overtime and shiftworking.

Table 4

Variables related to the amount of overtime worked

<u>Variable or characteristic</u>	<u>Median hours of those having characteristic</u>	<u>Median hours of those not having it</u>	<u>No. of men having characteristic</u>	<u>Q-value<sup>1</sup> (* = very small)</u>
Works for Gas Board	17.33	10.25	8	0.48
Works for Rubber Factory	13.00	10.30	13	0.75
Works in Brewery	10.00	11.14	14	*
Works for British Rail	10.40	11.16	11	0.50
Works for Bus Company	21.00	9.73	10	0.54
Works for Printing Firms	3.60	12.27	9	0.88
Skilled Worker	9.30	12.40	30	0.54
Owner-occupier	11.40	10.00	30	*

<sup>1</sup> Notes over page.



<u>Variable or character- istic</u>	<u>Median hours of those having characteristic</u>	<u>Median hours of those not having it</u>	<u>No. of men having character- istic</u>	<u>Q-value<sup>1</sup> (* = very small)</u>
owner- occupier of four or more rooms	11.33	10.78	13	*
A-type house- keeping system	10.70	11.30	32	*
Hire purchase commitments	10.78	11.00	42	*
Gives some of overtime earnings to wife	13.50	11.42	24	0.36
Car owner	11.33	10.66	30	*
Four or more children	14.60	10.60	14	0.21
Interested in do-it-your- self work	9.72	11.56	15	*
Participates in sport	9.50	11.71	22	0.33
Husband and wife have mainly joint friends	9.40	12.50	26	0.54
Husband and wife have mainly segre- gated net- work	17.33	10.10	11	0.81

Notes: <sup>1</sup> Q-values were based on tables of the form described on page 246 of this chapter.

Totals exclude those who said they could not choose how much overtime they worked.

Controls are also excluded.

In both their study and this one, it appears that the amount of overtime work done is greater amongst the unskilled and semi-skilled, car-owners and those paying

mortgages; and less amongst those who take part in sporting activities,<sup>3</sup> (though the influence of the last three factors is very small in my sample taken as a whole). The Prices and Incomes Board also find that men with an interest in "do-it-yourself" activities work more overtime than those who do not. In the Edinburgh sample, those interested in "do-it-yourself" activities work less than the rest. A possible reason for this difference is that, whereas in the N.B.P.I. sample, do-it-yourself activities are strongly associated with owner-occupancy, in my sample, about half the do-it-yourself enthusiasts are tenants. It may be that the NPBI's finding is really a spurious one, and that in fact the "d.i.y." men really work more than the others just because they are owner-occupiers. This would explain why the same sort of association does not occur in the Edinburgh sample. On a priori grounds, one would expect men with d.i.y. interests to work shorter hours than the others. Do-it-yourself work, after all, is analogous to the "domestic production" of the wife, and in economic terms it is an alternative to paid work, since it saves the householder money spent on other people's labour.

The only other simple factor which the Prices and Incomes Board find has an influence on overtime is "relaxing, reading, playing records, etc." as a main leisure activity, which exerts a downward influence on the amount of overtime worked. This type of leisure pursuit was mentioned only three times in the Edinburgh sample - very few men, in fact, mentioned leisure activities other than visiting pubs, watching television, playing or watching football, playing golf, and "do-it-yourself" work.

<sup>3</sup> op.cit., p.183 et seq. of supplement.

This rather narrow range of leisure activities is perhaps accounted for by the fact that the men in the Edinburgh sample worked unusually long hours compared to the national average for their industries and compared to the men in the Prices and Incomes Board sample. (See table below). The NPBI report does not give any data on the amounts of overtime done by the "high overtime" and "low overtime" workers in their sample, but it is clear from the proportions in these two categories that the median amount of overtime worked was not less than 6 hours. In the Edinburgh sample the median amount of overtime worked was around 10 hours. Since unemployment in Scotland is higher than in the country as a whole, these long working hours were probably not due to a local shortage of labour. Several men in the sample - the printers, particularly, but also some of the rubber factory workers - reported that the amount of overtime work available in their firm or department had fallen in the last year. These long working hours may have been due to the fact that all the men in my sample (except the 7 controls) had dependent children. It was found by the NPBI that, as one would expect, men with dependent children tend to work relatively long hours. On the other hand, the control couples did not work much less; their average working hours were 48.9, which is still higher than the national average, though with only seven in the control group, this figure may not be very meaningful.

Table 5National average overtime hours in  
different industriesOctober 1968

All industries:	5.8 hours per week
Food, drink and tobacco:	7.6
Engineering and electrical goods:	5.6
Timber, furniture, etc:	5.9
Paper, printing and publishing:	6.2
Transport and communication (excluding railways) :	10.4
Gas, electricity and water:	3.9
Construction:	7.8
Other manufacturing:	6.7

Source: Statistics on Prices, Incomes,  
Employment and Production,  
March, 1969. (Department of  
Employment and Productivity)

Relationships between the variables which  
influence overtime, and the variable tree

Returning now to the list of characteristics given in Table 4, one must consider which of them are independent of each other? Moreover, which can be said to have a casual influence on overtime, rather than being a result of the amount of overtime worked?

The variable entitled "husband and wife have entirely separate friends" is a particularly problematic one in this respect. This variable refers to a state of affairs in which the wife has her friends and the husband his; they are two distinct sets of people which do not overlap. One must ask, does this state of affairs arise because the husband does a lot of overtime or does he do a lot of overtime because of it?

Only eleven couples in the sample have a double set of acquaintances like this. Such a pattern entails a high degree of separation of husbands' and wives' leisure activities. For example, one such couple, who may be referred to as the "Robertsons" were "very seldom out together". The husband's friends were his workmates in the gas works; his wife was a nurse, and had friends who were also nurses. Their respective work environments were the main sources of social contact for both Mr. & Mrs. Robertson. (Six of the eleven men who had entirely separate acquaintances from their wives, drew their friends mainly from their work-place whereas this was very unusual in the rest of the sample). Mr. Robertson worked back shift (4 p.m. to midnight) two weeks out of three, and night shift the third week, so that they did not frequently spend their evenings together. Shift work was compulsory in his job, but Mr. Robertson did night shifts more frequently than was obligatory, because he liked to have an extra day off at the end of the week. Thus, he never did day work by choice. Mr. Robertson worked 18 hours per week overtime in winter; in summer, when work was slack, he made his week up by doing odd jobs for friends.

Another couple who had separate acquaintance sets were Mr. & Mrs. Clark. They did not entertain anyone at home except their relatives; Mrs. Clark said she "had a small circle of her own" but in fact "was only out visiting relatives and friends". Mr. Clark played golf and went for a drink with a friend. He did not do shift work, but worked between 57 and 60 hours per week none the less,

usually over both days of the weekend. He was a maintenance worker at the rubber factory. (He said that he took all the overtime going, although there did not seem to be any special reason why he should work so hard - they had saved \$150 in the last year, which was not earmarked for any special purchase). Asked: "Does the amount of tax you pay discourage you from trying to earn as much as possible?" he said "yes, but I still work". Mr. Clark said he liked his trade, and that he would not do anything different if he could have the choice of starting all over again. His father worked for the same firm.

Probably such a pattern of separate acquaintances is both cause and effect of the husband's involvement in his work, in such families as these. The more a man finds satisfaction in the company of his workmates, the less are the disutilities attached to work, and the longer hours he will be prepared to work. But on the other hand, a pattern of very long working hours, once established - and it may be established in the first place for purely economic reasons - may cut a man off from acquaintances outside the workplace. This is particularly likely if he does shift-work. But some of the things Mr. Clark said suggest that the first point was the salient one for him. The fact that he positively liked his work, although he did so much of it, and that it was, for him, part of a family tradition, supports the idea that work involvement induces people to work long hours, rather than vice versa.

The same issue of "cause or effect?" arises with other aspects of a man's leisure activities which appear to



be associated with his overtime work. Both participation in sport and an interest in do-it-yourself activities are associated with relatively low amounts of overtime in this sample. One could argue that men work less overtime because they have a hobby which makes leisure particularly attractive to them. But on the other hand, men might develop such interests when they have time on their hands, perhaps when little overtime is available. If this happens, their established hobby might make them less willing to do overtime at a later period. Because of this possible "self-reinforcing" effect of these two leisure activities, I decided to continue to regard them as independent variables which have a causal effect on overtime, instead of vice versa. The same applies to the two variables describing friendship patterns. ("Husband and wife have mainly joint friends" is at the opposite pole to having separate acquaintance sets; it means that the acquaintance sets of husband and wife overlap to a high degree).

The variable tree developed to explain differences in overtime working is shown below. A problem arose as to which variable to use for the initial sub-division of the sample. The variable with the higher Q-value for the whole sample is "works for a printing firm" but "segregated network" comes a very close second. I decided to use the second variable for two reasons: firstly that a large part of the difference in overtime working between the printing firms and the rest of the sample can be explained by the high proportion of skilled workers amongst this group: and secondly, that many of the

printers said that overtime was unusually low at the time of the survey. The most remarkable thing about this tree is the importance of the two non-economic variables, the separate acquaintance sets and, for the skilled workers, the housekeeping system. The Q-value for the acquaintance sets variable is extremely high, and there is a reasonable probability that such a result would be replicated in a larger sample, provided this sample is not non-random in respect of the way overtime and friendship patterns are related. This relationship is significant at the 99% level of confidence (using Fisher's exact test).

Fig. 6

## Variable Tree for Overtime Hours

Whole sample,<sup>1</sup> excluding controls  
(43 high, 32 low)

husband and wife have  
separate acquaintance  
sets  
(10 high, 1 low).... Q=0.81<sup>4</sup>

husband and wife do not have  
separate acquaintance sets  
(33 high, 31 low)

skilled workers  
(8 high, 16 low).. $Q=0.54$ <sup>5</sup>

unskilled workers  
(25 high, 15 low)

A-type house-  
keeping system  
(6 high, 7 low)

B-type system  
(1 high, 6 low)

housekeeping  
system not  
known  
(1 high, 3 low)

.....  $Q=0.68$  .....

participate  
in sport  
(2 high, 5 low)

don't take  
part in  
sport  
(4 high, 2 low)

.....  $Q=0.67$  .....

bus workers  
(8 high, 2 low)

not bus  
workers  
(17 high,  
13 low)

.....  $Q=0.52$  .....

have car  
(7 high, 3 low)

don't have car  
(10 high, 10 low)

.....  $Q=0.40$  .....

have high purchase  
commitments  
(7 high, 4 low)

no hire pur-  
chase commit-  
ments  
(3 high, 6 low)

.....  $Q=0.56$  .....

See notes over page.

- Notes:
- 1 "Whole sample" means all those who (a) have children; (b) can choose how much overtime they do; (c) whose overtime hours are known and (d) whose housekeeping system is known to be either A-type or P-type.
  - 2 "High" overtime means 10 hours per week or more; "low" overtime less than 10 hours.
  - 3 The "sport" and "car ownership" divisions are dubious in so far as one or two cases transferred to another category could reduce the Q-value in either case to less than 0.3, which is meaningless. However, car ownership is the only variable which has a Q-value even as high as 0.40 at that stage in the tree.
  - 4 Significant at the confidence level of 99.9%, using Fisher's exact test.
  - 5 Significant at the confidence level of 97.5%, using the  $\chi^2$  test.

The probability of the housekeeping system having a similar effect in a larger sample is more doubtful - within the sub-group of skilled workers not having separate acquaintance sets, the value of  $\chi^2$  for the contingency table of overtime against housekeeping system in the sample as a whole is 3.12, which would not make the result significant at any normal confidence level, but would allow a confidence level of over 90%. As shown in the variable tree, the relationship becomes significant when the sub-group in which husband and wife have separate acquaintance sets is removed from the sample.

These results therefore offer a pointer towards two potentially important variables which the Prices and Incomes Board may have found without actually identifying them. The cluster analysis carried out by the Prices and Incomes Board on their sample does not obtain any groups in which the pro-

portion of men doing overtime was substantially below the sample average, but those two clusters in which it was above the sample average have some characteristics in common with the two groups I have identified in this analysis as having the strongest tendency to do large amounts of overtime. The first cluster, which the Prices and Incomes Board entitle "young marrieds", are defined as relatively young workers with dependent children, relatively likely to have cars and to be buying their houses, all of which are characteristics of the A-type men in the Edinburgh sample. The second cluster identified by the Prices and Incomes Board, which they call "work oriented, including social life", is, like the group with separate acquaintances sets in the Edinburgh sample, a group who are strongly involved in their work; "their involvement in their firm is further indicated by their stronger interest than most groups in social and sports amenities, good worker/management relations, interesting work and a friendly atmosphere". It is suggested, therefore, that these two variables are of considerable interest and that they would be worth investigation in a larger sample.

#### Summary of findings on the determinants of overtime

This variable tree has confirmed the relatively high importance of the housekeeping system as a determinant of overtime amongst the group of skilled workers. It also shows the worker's social network to be a very important determinant of overtime. In agreement with the Prices and Incomes Board's findings, car ownership, hire purchase commitments and interest in sport also appear to have a

substantial influence on overtime in this sample.

### 3. The Labour Force Participation of Wives

The objectives of analysing this aspect of the family's labour supply are similar to the objectives of analysing men's overtime working. Firstly, it is intended to examine the general determinants of women's labour force participation; the housekeeping system being amongst the variables to be tested. The relative importance of the latter may then be seen in its proper context. Secondly, I have placed in this section the investigation of the second hypothesis formulated in Chapter 2; that is so far as the family's supply of labour is a joint effort to supply joint needs, the wife's labour should be a substitute for the husband's. If this is the case, one would expect a negative correlation between hours worked by wives and hours worked by husbands.

#### The influence of changing custom

The first question which should perhaps be asked is, to what extent is the labour of married women discretionary? If it were the custom for all wives to work, just as it is the custom for all men to work, we should not need any explanation of why wives work. Both sociologists and economists have, up till now, found it necessary to ask this question because a large proportion of married women still do not work; hence the large volume of literature presenting various answers. Rossett (1958) finds that successive cohorts ("generations") of women up to the late fifties have been more likely to work than the cohorts before them. He thinks that the most recent cohort has come to work about as much as child care commit-

ments will permit, and that therefore the rate of increase in the labour force participation of women is slowing up. What, then, is the limit determined by child care commitments? Audrey Hunt (1965) finds that 41.5% of mothers of school-age children worked, but only 13.6% of mothers of children aged under 3, and only 19.3% of mothers of 3 to 4 year olds. Thus, mothers are much less likely to work if their children are under school age. One may postulate that unless and until more nursery facilities become available, and gain acceptance amongst mothers, this barrier to women's employment will remain; that wives will tend to give up work during their first pregnancy, and not recommence until their youngest child is at least five. Wives' employment could increase up to the maximum compatible with this constraint, and, in so far as attitudes towards women working have become more favourable amongst successive generations of women and their husbands, one would expect the younger cohorts to approach maximum participation more nearly than elder cohorts. In fact, a cohort can be identified in the Edinburgh sample who seem to have nearly reached a maximum for part-time employment. These are the group of women who have no pre-school children, and who had their first child in 1956 or later; almost all of this group work, although most of them only part-time. Women who had their first child before 1956 are rather less likely to work, although only one of them had a child below school age at the time of the survey. It may be that this cohort in the sample represent a generation of women for whom it is customary to work once their children are at



school. On the other hand, it may be that the proportion of women working in this sample is unusually high for some reason, as is the incidence of overtime work amongst the men. Exactly half of the women in the main sample with children work, whereas Audrey Hunt finds that even amongst women whose children are at school, the proportion of workers was only 41.5% in 1965. Amongst the women with schoolchildren in the Edinburgh sample, five out of six work; even amongst those with pre-school children, just over one quarter work (see Table 7 below).

Table 7

Wife's employment by age of children

	<u>Wife works</u>	<u>Wife does not work</u>	<u>Total</u>
At least one child of 5 years or less	14	34	48
No pre-school children but some school- children or working children under 19 <sup>1</sup>	35	7	42
No children yet	3	0	3
Children all 19 or over	3	1	4
Total	55	42	97

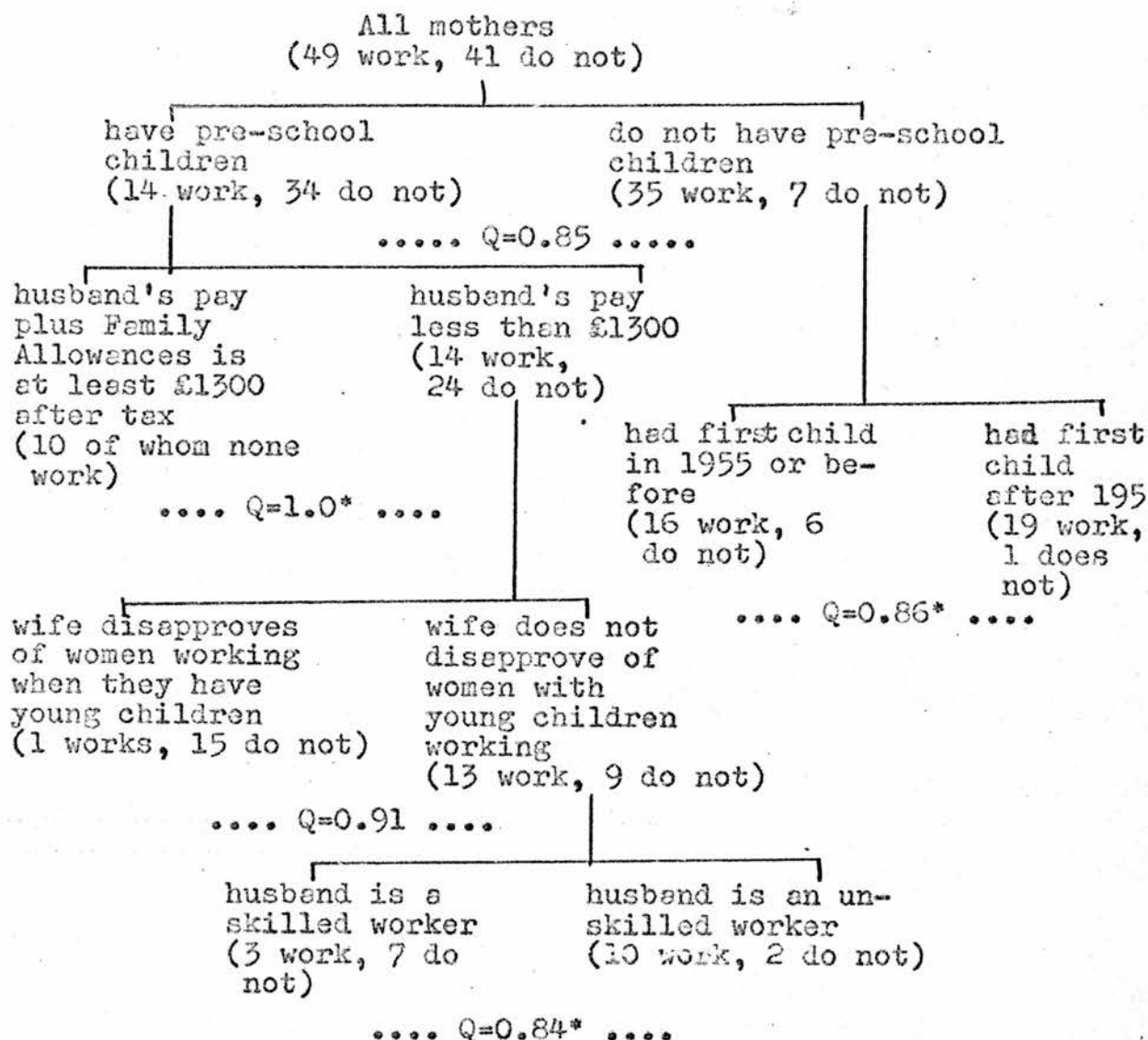
<sup>1</sup> There was no family in the sample having only working teenagers and no schoolchildren.

It appears, then, that either because of their particular economic circumstances, or because many of them belong to a generation of women who are more work-oriented than any previous generation, the work of these Edinburgh wives may be less "discretionary" than that of many other samples

which have been studied in Britain and the U.S.A. In other words it is possible that these women feel that their husbands, and other relatives and friends, consider it usual that wives should contribute to the family income. From thinking it normal for women to work, it is only a short step to thinking that they ought to work. Perhaps some families, particularly the poorer ones, do think this already. If this attitude were to become general, one would see no reason to do research on women's motives for working; possibly we are moving towards an age when all married women will work once their children are at school, in which case the prediction of married women's participation in the labour force would become a very simple matter.

The variable tree and the importance of age of children

One must regard the presence of pre-school children as the over-riding factor in the explanation of why some wives in the sample work and others do not. The focus of interest in the data is the minority of mothers of pre-school children who did work, and the even smaller minority of older women who did not work. A variable tree was drawn up to attempt to explain why women in the sample worked or did not work using the Q-test again to find the most important variable in each sub-group. The results are as follows:-



Note: All the relationships shown in this tree are significant at least at the 97.5% level of confidence. (Fisher's exact test was used for those starred,  $\chi^2$  for the others).

This analysis shows that above a certain income level, women with pre-school children do not generally work. Below the income level of £1300 per year, whether the mothers of pre-school children work depends to a large extent on their attitude to child care. (Such attitudes were expressed in response to an open question: "Do you think it's a good thing for married women to work, in general?"). Those

mothers of under-fives who thought a woman's place was in the home whilst she had young children (some specified children under 5) were most unlikely to work, even if they had a relatively low family income from other sources. In the group of young children's mothers who did not have a disapproving attitude, the skill level of the husband appears as a further variable distinguishing those who work from those who do not. At this stage, any dichotomisation of the income variable, taken as husband's take-home pay, does not produce such a high Q-value as skill level. It could be, however, that the skilled workers' wives consider themselves better off because their husbands have higher basic wage rates than the unskilled husbands, and that this is why these skilled workers' wives tend not to work whilst the unskilled men's wives mainly do.

A cross-sectional negative income effect, then, is definitely present amongst the mothers of pre-school children, but it does not appear amongst other wives. For the older women, those whose children are at school, the generation to which they belong is the main determinant of whether they work. Since neither the women's actual age nor the dates of their marriages are known, I took the date of birth of their first child as the best available indicator of age. 1956 is the date which most sharply distinguishes the work-oriented generation from the previous generation.

Both Mincer (1962) and Cain (1966) find that the "wage-effect" - the positive influence of the wife's own potential earnings on her willingness to work - is stronger in cross-

section than the negative income effect of the husband's pay. This is not so in the Edinburgh sample; perhaps partly because there is little variation in the wives' wage rates, as shown in Table 9 below. However, I am also suspicious of the nature of the data presented as evidence for the "wage-effect" by these two writers. That higher-paid women are more likely to work than lower paid women may simply indicate that women in professional and clerical occupations have a more favourable attitude towards the idea of mothers working than women in manual occupations. Or it may indicate that women in non-manual jobs find work more interesting. Audrey Hunt finds that women in non-manual occupations are more likely to be motivated to work by non-financial considerations than women in manual occupations. Such non-financial reasons are; to have company, to avoid boredom, to use qualifications or interest in a particular field of work. Time-series data, showing that as women's wage rates have risen over time, more married women have taken to working, are adduced as evidence for the "wage-effect". But this rise in women's wage rates has been taking place at the same time as a widespread change in attitudes towards wives working, and at the same time as a change in the distribution of women between different occupations. Over the last few decades, the proportion of women in clerical jobs has risen very rapidly, and the proportion in domestic service has declined. In other words, women have become increasingly able to obtain jobs which provide interest and company. In the Edinburgh sample, there is also some

evidence that women who had non-manual jobs (excluding shop work<sup>4</sup>) before marriage, and their husbands, are less likely to express total disapproval of married women working than are women who had manual jobs before marriage, and their husbands. Of the 27 women in the sample with children who had non-manual jobs before marriage, only one was entirely against married women working, although two of these women's husbands were. But of the 53 women in the sample with children who had manual jobs before marriage, nine expressed unqualified disapproval of married women working and 14 of their husbands did. Could this be because non-manual work is regarded as cleaner and less tiring, less likely to make a woman too tired for her domestic work and perhaps more respectable? Or because the increasing employment of women in factories is seen to be a threat to men's employment, and this feeling is rationalised into an idea that work interferes with a woman's domestic role? The latter explanation seems unlikely, for only one man who disapproved of women working, did so because he thought women were putting men out of jobs. The former explanation seems plausible, but the survey offers no further data to support it.

<sup>4</sup> Some shop occupations (e.g. supermarket cashier, or stores assistant) are effectively manual, so I excluded five former shop assistants on the grounds that it was not possible to tell exactly what they did.



Table 9Hourly wage rates of working wives in  
the sample, by occupation

<u>Occupation</u>	<u>No. of women</u>	<u>Mean hourly earnings, new pence</u>
Clerical workers	7	27p
Cleaning and catering workers (excluding cleansers in private houses)	23	24½p
Cleaners in private houses	7	22½p
Shop assistants	8	21p
Factory workers	2	one 15p one 35p
Bus conductress	1	31p
Auxiliary Nurse ) Wigmaker ) Social worker ) Nurse ) Hairdresser ) Bingo Hall Book ) controller )	1 each	
Total	55	

Analysis of women's attitudes to work

Since the variable tree shows this factor to be of considerable importance amongst the mothers of pre-school children, I have analysed it at some length. Tables 10 and 11 show that women are more likely to express concern that working mothers should not neglect their children, rather than to say that married women should not work at all. This tendency is particularly marked where the woman herself has a pre-school child. The men in the sample, on the other hand, were just as likely to express

total disapproval for married women working as to make objections related to children. However, there does not seem to be any association between the husband's attitude, where ascertained, and whether the wife does work or not. Perhaps husbands have become less influential in this respect in recent years; Thompson and Findlayson (1963) report, of an Aberdeen sample of mothers of pre-school children interviewed in 1954, that a large proportion of these women wanted to work but their husbands would not let them.

Table 10

Attitudes to married women's employment  
expressed by couples with  
pre-school children

	<u>Opinion expressed</u> <u>by:-</u>		
	<u>Husband, where</u> <u>wife made a</u> <u>different</u> <u>reply</u>	<u>Wife, where</u> <u>husband</u> <u>made a</u> <u>different</u> <u>reply</u>	<u>Both making</u> <u>same</u> <u>reply</u>
1) Married women should not work if they have young children	2	6	4
2) Married women should not work (unqualified)	7	2	4
3) It is all right for married women to work if the children are not neglected	5	11	1
4) No disapproval expressed	4	7	7
5) Ambiguous replies, or person not present	4	4	0
6) Question not asked <sup>1</sup>	10	2	0
Total	32	32	16

<sup>1</sup> See notes over page.

Note: 1 The question was not asked of 10 husbands and two wives. In the second version of the questionnaire the question to husband's was deleted, because it seemed that where husband and wife disagreed, it was damaging rapport, and because the husband's attitude did not seem to have any effect on whether the wife worked. However, several husbands made spontaneous replies even when the question was only asked of their wives which was the main issue at stake. The wording of the question for wives was also changed because I feared that some of the replies which were given in answer to the old question, "Do you think it's a good thing for married women to work, in general?" might be producing replies which the informants felt were expected of them (for example, some which referred to delinquency and to "children left on the streets") rather than expressing their real personal feelings on the matter. The new question asked was "Would you prefer to work or stay at home?" In fact, the women who were asked the revised question showed no smaller tendency to express some degree of disapproval than did the women asked the original question. The women replying independently of their husbands to the old question were divided into half (19) who approved of women working unconditionally, and half who disapproved to some extent. Of the women replying to the revised question, 9 disapproved, 10 approved and 2 gave ambiguous replies.

Table 11

Attitudes to married women working  
expressed by mothers of school-  
children and their husbands

<u>Categories of opinion</u>	<u>Opinion expressed by:</u>		
	<u>Husband only</u>	<u>Wife only</u>	<u>Both together</u>
1) Married women should not work if they have young children	2	1	7
2) Married women should not work (unqualified)	3	2	2
3) It is all right for married women to work if the children are not neglected	2	5	2

Opinion expressed by:

	<u>Husband only</u>	<u>Wife only</u>	<u>Both to- gether</u>
4) No disapproval expressed	2	12	9
5) Ambiguous replies, or person not present	3	2	0
6) Question not asked	10	0	0
Total	22	22	20

Of the couples whose children had grown up, all four husbands (but only one wife) expressed total disapproval of married women working. Of the couples with no children yet, all three approved of married women working, both husbands and wives. Comparing the control group with the rest of the sample this suggests that favourable attitudes towards wives working have become more common over time.

A variable more generally associated with unqualified disapproval on the part of the husband is the type of acquaintances a couple have. Twelve couples in the sample mentioned no friends, apart from relations, and four mentioned only one. Of these 16 couples, nine husbands expressed unqualified disapproval of married women working, whilst in the rest of the sample, only 10 other husbands held this view. ( $Q=0.78$ : this relationship is not, however, significant). One may speculate that if this relationship is valid, it exists for the following reason: that it is possible that husbands who hold this sort of opinion are people who have few social contacts outside the family because they do not find a need for them. Such people would perhaps be less sympathetic to the view of the woman who wants to go out to work for the sake of company.

Also, if they have no close contacts with non-relatives, men may be more influenced by the older generation whose attitudes to women working are less favourable. This could apply to the wives in this sub-group too.

In this group of 16 family-oriented couples, six of the men's wives agreed with their husbands in saying that married women should not work at all, three disapproved only in so far as the children might be affected, and seven approved of wives working. Thus, all the couples who jointly expressed total disapproval of women working were in this family-oriented minority.

The "disapproving" wives amongst those with pre-school children, both those who were entirely against women working and those who thought it was a bad thing while the children were young, possibly felt able to indulge in their misgivings about mothers' employment because they had relatively less responsibility for budgeting than other mothers of pre-school children. The A-type housekeeping system, in which the husband takes a relatively larger amount of responsibility for budgeting than in the P-type system, is relatively common amongst the disapproving group, as shown in the table below, although this relationship also is not significant;  $\chi^2 = 3.61 : Q=0.54$ ).

Table 12  
Attitudes to work and housekeeping  
system amongst mothers of  
pre-school children

<u>Housekeeping</u> <u>system</u>	<u>Disapproves</u>	<u>Does not</u> <u>disapprove</u>	<u>Total</u>
A-type	10	10	20
P-type	6	20	26
Total	16	30	46

Moreover, within the group of A-type cases in this table, the disapproving wives are more likely than the approving wives to have their husbands pay for hire purchase instalments ( $Q=0.75$ ), more likely to have their husbands pay for furniture ( $Q=0.54$ ), as well as for toys for the children ( $Q=0.76$ ). They are barely more likely to have their husbands pay for their own (the wives') clothes ( $Q=0.33$ ). Thus it appears that the mothers of pre-school children who are apparently kept from working by their attitude towards the care of children, are in fact given less incentive to work, by virtue of the house-keeping system they operate, than are other mothers of pre-school children. Perhaps, basically, all mothers of young children feel this way, but those who find it hard to manage on their housekeeping money accept that financial necessity may have to over-rule other considerations. The point is not that the husband's taking responsibility for the items of expenditure just mentioned necessarily gives the family a higher standard of living. Rather, these items are items of discretionary expenditure, which people like to feel they can splash out on every now and again. They feature prominently in the things which working wives in the sample say they spend their money on, as shown in the next table. This suggests that many women work in order to have a fund from which discretionary expenditures can be paid for as required; they like to have a bit of money for non-essential purposes under their control, so that they do not have to ask their husbands for too much.<sup>5</sup>

<sup>5</sup> c.f. the view of Pearl Jephcott, referred to in Chapter 3, that the wife's wages give a welcome degree of flexibility to the family budget.



Those whose husbands expect to provide for discretionary expenditure are not, therefore, so strongly motivated to work as the others.

In practice, it is difficult to see how the mothers of pre-school children who did work, were neglecting their small children. One of this group of working women took her child to her mother's while she worked. Another sent her child to a public nursery. Two domestic helps took their children with them to work. Three women worked in the small hours of the morning before their husbands went to work, and eight had evening jobs. (The last of the 14 working mothers of pre-school children was a shop assistant, and it is not recorded what she did with her child while at work). Thus, there were very few who handed a young child over to someone else whilst they were at work. Perhaps the disapproval expressed by so many mothers in the sample was induced by the mass media; or perhaps it was a "respectable" attitude which people wanted to emphasise to the interviewer. Some statements made by women in the sample, such as: "I think it (mothers working) causes a lot of delinquency", or "It's all right if the children are not left in the streets" seem to support the former hypothesis. (Each of these statements occurred three times in varying forms). Alternatively, the idea that a woman's first duty as a mother should preclude her working may be a widely held view amongst a certain section of the working-class - perhaps those whom Margaret Stacey (1960) would describe as "traditional respectable".

Table 13

What working wives spend their money on  
by their stated reason for working

<u>Reason for</u> <u>Working:</u>	<u>Clothes,</u> <u>personal</u> <u>expendi-</u> <u>ture</u>	<u>Things for</u> <u>children</u>	<u>Household</u> <u>equipment</u> <u>and</u> <u>furniture</u>	<u>Essentials</u>	<u>Saving</u>	<u>Other</u>	<u>Total</u>
Money	7	1	2	12	2	5	29
Company	1	3	2	3	2	3	14
Both money and company	2	3	0	2	2	3	12
All reasons	10	7	4	17	6	11	55

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Notes: 1. "Other" items of expenditure included car, holidays, paying off debts such as a large mortgage, repairs to the house, and some frivolous replies like "smoking".

2. If women gave more than one item on which their earnings were spent, the first mentioned is recorded here.

However, these doubts as to the genuineness of this attitude cannot be used as an argument that the house-keeping system, rather than attitudes, is "really" the determinant of labour force participation in the lower-income section of the pre-school children's mothers. Attitude does have a higher Q-value than the house-keeping system for this group.

#### Effect of help from husbands

This survey did not investigate the extent to which husbands helped with domestic tasks; evidence on this point from other studies suggests, however, that this would have been substantial. Goldthorpe and Lockwood (1969, page 107) find that 48% of manual workers in their sample helped to put their children to bed, and 80% helped to take younger children and babies out. Jephcott (1962) thinks that the help given to the working wife by her husband was substantial but does not specify any data. Audrey Hunt (1965) finds that 67.8% of all married women received some help from their husbands, but only 54.8% of working wives did. Thompson and Findlayson (1963) also find that working wives get less help from their husbands than housewives; 54% of working wives, but 72% of housewives, received some help. Since Thompson and Findlayson were writing some years earlier than Audrey Hunt, and since one would expect, if anything, a trend towards greater help being given by husbands, it is possible to dismiss any idea that Scottish families are "behind the times" in this respect. I am therefore tempted to re-iterate the suggestion that the disapproving mothers' attitude in the Edinburgh sample was not generated by the

fear that their husbands were unable or unwilling to cope with the children in the early morning or evening, but possibly by statements made by television and the press about the ill-effects of mothers working on children's behaviour.

Effect of segregation in the conjugal role - relationship

Why do two of the studies referred to find that working mothers receive less help from their husbands than non-working mothers? It seems worth digressing a little on this issue because it throws some light on the connections between attitudes to work the housekeeping system and role segregation. Could it be that the younger the children, the more help the mother requires, and at this stage of the family's development she is least likely to work? This could be the explanation in Audrey Hunt's sample, but it is less likely to be so in Thompson's and Findlayson's study, which is entirely about families with children under 5. These authors suggest that both a relative lack of help on the part of the husband, and a tendency for the wife to work, are produced by a "lack of family integration", a concept which they do not define very clearly, but which may be useful if it can be clarified. If "lack of family integration" means a high degree of role segregation, both in task-performance and in financial responsibility, it could correspond to the P-type housekeeping system. As stated in the last chapter, this type of housekeeping system entails strong segregation of economic roles, with the wife as "manager" and the husband as "breadwinner". It also

entails some segregation of leisure activities. In this chapter, I have already presented some evidence that the A-type housekeeping system is associated with unfavourable attitudes to work on the part of the mothers of pre-school children. So there may be an interesting set of associated continua here:-

low family integration, defined as high role differentiation .....	high family integration, defined as high participation by husband in domestic tasks
P-type housekeeping system .....	A-type housekeeping system
Favourable attitude to work on the part of the wife .....	Unfavourable attitude to work

If these continua are valid and are associated, it means one has to be careful in relating the trend towards a greater proportion of married women working with a gradual breakdown of the traditional division of labour between the sexes, as Jephcott and, for that matter, Dennis, Henriques and Slaughter (1962) seem to do. For if, in cross-section data, a willingness to work on the part of the wife goes with low family integration, little domestic help from the husband, and high role differentiation, it seems likely that the apparent relationship between the breakdown of the sexual division of labour and a greater propensity of women to work, could in fact be spurious. However, one should perhaps be cautious about positing any new hypothesis on the basis of these continua. The apparent relationship between the P-type housekeeping system and a favourable attitude to work could merely reflect the association

between the P-type system and having an unskilled husband with relatively low earning capacity. The numbers here are too small to investigate whether the association between the housekeeping system and the wife's attitude to work, which I have described, is independent of skill level of the husband or not.

Relationship of women's propensity to work  
to the mechanisation of the home

Do the Edinburgh survey data throw any light on Clarence Long's hypothesis (1958) that women's propensity to work is influenced by the extent of mechanisation of the home? Long thinks that as the standard of living has risen over the last few decades, homes have become better equipped with labour-saving devices for the housewife, and thus women need to spend less time in the performance of household tasks. Consequently the marginal utility of hours spent in "homework" will decline relative to the marginal utility of time spent at work outside the home. In any case, on a priori grounds, I am somewhat dubious of the validity of Long's hypothesis. Even if one does regard washing machines, vacuum cleaners and so on as labour-saving innovations, then surely, like innovations in industry, they must be introduced because there is an economic need for them which justifies their expense. One such reason could be that the wife wants to go out to work, or is already doing so, which creates a potential or actual shortage of labour for domestic production. A second reason could be that the standard of hygiene and home comfort, as well as the frequency and complexity of entertaining, increases as the standard of living rises,



and likewise creates a shortage of domestic labour. A third such reason could be that as industrialisation - and, in Europe, war - created demand for female labour, and raised the wages of women in the industrial sector, domestic servants became more expensive and harder to obtain, and the middle-classes therefore used labour-saving machinery in their homes as a substitute for servants. This may entail that such machinery has taken on the significance of a servant-substitute, and become a symbol of a middle-class standard of living. Thus, as electrical appliances have become cheaper<sup>6</sup> the acquisition of such possessions may have become an object of ambition for less affluent women, and it may be that they go out to work in order to buy modern domestic equipment. Jephcott thinks that a large proportion of working women spend their money on durable goods:-

"One of the claims the Peak Freen women made was that their wage enabled them to stock up the house with better furniture and bedding, with labour-saving devices, radiograms, and many big buys they considered benefitted the family as a whole". (ibid., page 117)

She did not, however, find that wives who worked were more likely to have a washing-machine or a refrigerator than wives who did not work.

<sup>6</sup> The prices of electrical appliances have fallen substantially since the second world war. See "Long-term forecasts of demand for cars, selected consumer durables and energy" by C. St. J. O'Herlihy, K. M. Gwilliam, and G. Fane, in National Institute Economic Review, No.40, May, 1967, pp. 34-61.

In the Edinburgh sample, there is hardly any suggestion that the possession of a range of labour-saving devices is a necessary condition of going out to work as Long seems to think. Women who worked were slightly more likely to possess washing machines than housewives (47% of working wives had them as against 34.2% of housewives) but they were no more likely to possess hair dryers nor vacuum cleaners. Working wives were slightly less likely to use coal for heating, a practice which entails extra housework (12 working wives and 17 housewives used coal). Only seven of the housewives said that they wanted a washing machine - they all had young children, and therefore would probably not have worked, however many labour-saving machines they had had. Five housewives wanted a vacuum cleaner, of whom four had pre-school children, and six wanted a fridge, of whom five had pre-school children. I suggest, therefore, that married women are not deterred from working by lack of domestic equipment.

Is there any other evidence, besides Jephcott's, that working wives do in fact spend their earnings on durable goods? Audrey Hunt finds that 20.8% of married women say that they spend most of their earnings on domestic appliances (*ibid.*, p.125, vol 1). In the Edinburgh sample, very few working women mention durable goods specifically (see Table 12 above), though a few more say their earnings are used for saving, which may come to the same thing to a large extent. More than a third of the working wives in the Edinburgh sample say they spend their pay on "essentials" or "housekeeping"

and it may be that in this day and age, furniture and electrical appliances come under the heading of essentials. Obviously in many cases durable goods are purchased with the housekeeping money, and to the extent that the wife's pay goes together with the housekeeping money, it will provide more money for this purpose along with other purposes.

Differences between full-time and part-time workers

Previous writers on the subject of married women's employment have paid little attention to the question of whether women work full-time or part-time, and why. If it is becoming increasingly normal for wives to work, this question becomes of more interest than hitherto. Only twelve women in the Edinburgh sample worked full-time (which I defined as over 30 hours per week - in fact all the full-time workers worked over 35 hours). The table below shows the distribution of hours for the whole sample:-

Table 14

Hours worked by wives  
in the sample

<u>Number of hours</u>	<u>Number of women</u>
0	42
1 - 8	3
8 - 11	4
12 - 16	10
17 - 20	7
21 - 30	16
30 and over	12
Not known	3
	<hr/> 97 <hr/>

Only one of the full-time workers had a pre-school child. Eight of the full-time workers had school-age children, and three had not had any children yet. It is interesting that despite the fact that most of the women without pre-school children worked, very few of them worked full-time. What are the characteristics of the full-time workers? One ran her own business, so perhaps she worked full-time because she was interested in her work and it was particularly profitable, compared to the jobs of most of the other women in the sample. Three other full-time women had husbands with very low incomes (between £16 and £17 per week, as against the median in the whole sample of £21.8). One of these three was the only full-time worker with a pre-school child. This leaves five full-time women with children of school age, of whom four were clerical workers. Only two of the part-time workers were in clerical occupations, which carry a higher wage rate (average 28p per hour), in the sample than do the manual occupations and shop work in which most of the working women in the sample were engaged. The average hourly rate for cleaners and catering workers in the sample was 24p per hour, and for shop assistants only 22p per hour. It thus appears that the clerical workers have a financial incentive to work full time. Moreover, two of the three women who may have been working full time because their husbands' wages were so low, were earning relatively high wages - one had 32p per hour as a bus conductress, the other 35p per hour as a factory worker. It is likely, therefore, that there is a "wage-effect" which is widely responsible for women choosing

full-time in preference to part-time work; although women's potential earnings have apparently negligible influence in this sample on whether women work or not.

The substitutability of husband's  
and wife's labour

If there is any possibility of important substitution effects between wage increases for husbands and the hours worked by wives (or vice versa) one would expect that husband's and wife's hours would be negatively correlated in a cross-section such as this sample. But the product-moment correlation  $\rho$  between husband's and wife's hours is only 0.08 - a long way short of being statistically significant.

Within the group of pre-school children's mothers, I have already pointed out that women are more likely to work if the husband's income is low. This finding confirms that of Yudkin and Holme (1963) and Hunt (1965), who also find that husband's income has a negative effect on wives' labour force participation.

It is also possible to test whether the husband's and wife's labour are substitutes for each other, in the sense of whether the wife is more likely to work if the husband can obtain little overtime. One may postulate that if the husband is unable to supply the couple's desired standard of "collective" consumption because not enough work is available for him, the wife will make up the difference by working herself. If no control is made for the income variable (which would be impractical because the numbers are so small) a table is obtained as follows:-

Table 15

Wife's employment, age of children  
and husband's overtime  
opportunities

	<u>Have pre-school child</u>		<u>Have no pre-school child</u>		<u>Total</u>
	<u>Wife works</u>	<u>Wife does not work</u>	<u>Wife works</u>	<u>Wife does not work</u>	
Husband does, or could do, 10 or more hours over- time	11	24	20	3	58
Husband does not, and could not do, more than 9 hours over- time	3	10	15	4	32
Total	14	34	35	7	90

Note: This table excludes control couples (since their situation is rather different from those who still have dependents) but it includes men who cannot choose how much overtime they do. Information as to how much overtime was available was obtained from the question: "How much overtime can a man (in your job) get if he wants as much as possible?" Answers to this question were sometimes vague, but all were sufficient to tell whether the answer was at least 10 hours or not.

This table shows that there is no association between wives working and the husband's opportunities for overtime work, in either group of mothers.

Summary of findings on the labour force  
participation of women

In conclusion, it seems that the determinants of married women's participation in the labour force are fewer and more simple in this sample than the determinants found in some other studies; although one should qualify



this statement by saying that if the sample were larger, a greater number of relevant factors might become apparent. Amongst women with children under school age, less than a third (29%) work, and those who do are all in the lower income brackets. Amongst women who do not have children under school age, five out of six (83%) work, and almost all of those who do not are older women, those who started their families before 1955. One may speculate that once this generation of older women reach retirement age, it could be almost universal for working-class women to work once their children are at school. One could also speculate that as living standards rise, it will become increasingly rare for women to work whilst they have children under school age, since in this sample, all of the working mothers of pre-school children are below a certain husband's income level. If these two things occur, the prediction of women's participation in the labour force could virtually cease to be an interesting question for research; age of the youngest child could be a satisfactory predictive variable in itself. A question of greater potential interest for the future may be why women work part-time as opposed to full-time; and here a wage-effect is apparent. Because of the very large importance of age of children and income as determinants, in this sample, of women's labour force participation, the effects of the housekeeping system are difficult to assess. The only sub-group in which this factor appears of any importance is the group of mothers of pre-school children whose family income without the wife's earnings is less than £1300 per year. Within this

group, attitudes to the disutility of mothers working seem to be the main determinant of whether the women do work. But on analysing these attitudes one finds that disapproval is associated with the A-type system of financial arrangements. The numbers involved are too small to discover whether this association is spurious.

Previous literature suggests that the wife's propensity to work may be increased by role segregation, which I have previously suggested may be associated with the P-type system and with individualism in labour supply decisions. But the Edinburgh survey data throw no light on this hypothesis.

There is no evidence that the wife's hours of work are negatively associated with the husband's.

## 5. Conclusions

In summarising the conclusions of this chapter, I shall include a few minor points raised by earlier chapters which have not so far been considered. The following findings have been made:-

(1) The distribution of income within the family does have an influence on the husband's propensity to work, but this influence is not of the kind postulated by Shimmins or Millward for working girls, or by Brennan for fathers of large families. That is to say, the husband does not regard his reward from marginal earnings as being solely the extra pocket-money he keeps from those marginal earnings. The formula postulated for the reward from marginal earnings, in Chapter 2 appears to be a reasonable one. This included those collective expenditures in which the wage-earner takes an interest and which

are made possible by his marginal earnings. It turns out that the A-type husbands participate more fully in decisions concerning collective expenditures than do P-type husbands, so that there is a larger area of discretionary collective expenditures in which the A-type husbands are interested, and for which they themselves take the responsibility for providing money. P-type husbands, on the other hand, tend to give their wives a fixed housekeeping allowance, leaving purchasing decisions much more exclusively to their wives than do A-type husbands. The P-type husbands are less likely to be responsible for finding the money for discretionary collective expenditures. A large proportion of marginal (i.e. overtime) earnings of P-type men is allocated to their personal pocket-money, which is spent on goods such as drinks, tobacco, fares to work and lunches, for which there is a low elasticity of demand. Consequently, the P-type husband has rather less use for extra money than the A-type husband. This creates a tendency for the A-type husbands to work longer hours, amongst the group of skilled workers in the sample. For some reason, no such effect is apparent amongst the unskilled workers.

(2) A point which I have not mentioned earlier is that the actual ratio of the husband's personal expenditure to his income is not a determinant of how much overtime he does, (as Brennan would seem to imply). Overtime hours are not correlated with this ratio, nor with any of the factors tending to make it abnormally high or low which were identified in Chapter 5, except for car ownership. Car owners both work a large amount of overtime and have a large amount of pocket-money.

(3) The latent demand factor, mentioned in Chapter 2, is strongly associated with the housekeeping system. A-type couples have much more extensive ambitions to own certain durables than P-type couples. They are also more likely to be owner-occupiers, which means that a larger area of potential expenditure in the way of house improvements opens itself up for them than for the P-type couples. This, also is a factor which may tend to make A-type men work harder.

(4) Another factor tending to make husbands work long hours is what might be called the intrinsic utilities arising from work. Men who have relatively many friends amongst their workmates, and relatively few in other circles, work very long hours compared to the rest of the sample. A strong interest in leisure activities external to work (sport) has the opposite effect - men with an interest in sport work little overtime. Both these findings also occur in the Prices and Incomes Board's study of overtime and shiftworking.

(5) Large household financial commitments - particularly car ownership, hire purchase, and a large number of children - entail that the husband works particularly hard.

(6) Notwithstanding these influences on overtime, occupation - in particular skill level - has a very strong effect. The sample exhibits the occupational distribution of hours worked which was found by Feldstein; the higher-paid skilled workers work shorter hours than the lower-paid unskilled workers.

(7) The labour of wives is not so "discretionary" as has previously been supposed by many writers (Rossett perhaps excluded). Almost all the younger women in the sample work part-time, unless they have pre-school children. There is very little evidence that the house-keeping system exerts any influence on the wife's propensity to work, except a slight tendency for the mothers of pre-school children who have an A-type system, to be less likely to work on the grounds that their children might be neglected. It could be that A-type mothers feel free to subscribe to this attitude because their husbands are more ready to enlarge the family income by working extra hours when extra money is required.

(8) There does not appear to be any negative correlation between husband's and wife's hours worked, either in the sample as a whole or when controlling for the presence of pre-school children. However, it is true that above a certain income level, no mothers of pre-school children work, so that some negative income effect appears.

(9) A correlation -matrix of all internal scale variables in the data (which I have not discussed in full here because it produced few findings of importance) shows that the amount of tax paid by wage-earners, however measured, seems to have no effect on the propensity to work in this sample; at least none that is not obscured by other factors. Since the time of investigation was unproductive, I have not hitherto mentioned it.

(10) The smaller material ambitions of P-type husbands, relative to A-type husbands, make it likely that the negative income effect in response to pay rises would be more common amongst the P-type men.



## CHAPTER 7

THE FAMILY'S SAVINGS BEHAVIOUR

In the first chapter I pointed out that the theory of saving has developed to a large extent separately from the theory of consumers' choice between commodities. I suggested that this is one example of how academic fields are artificially defined and separated for convenience in theory-building, presenting a need to consider what effect this separation of terms of reference may have on the usefulness of the theories so developed. In this chapter I attempt to bring together some concepts from both of these two fields, and develop the consequences of the hypothesis that some types of saving are interchangeable with the demand for particular commodities.

The notion of functional saving

Seen from the point of view of the community as a whole, the choice between savings and spending has often been regarded as a choice between present and future consumption.

But in the theory of the consumption function, that is, throughout most of economists' thinking about the nature of individuals' and households' decisions to save, saving has generally been considered as a combination of residual and contractual elements.<sup>1</sup> In the most widely accepted theory of saving, Friedman's "permanent income hypothesis", the greater part of saving is considered to

<sup>1</sup> See, for example, Lydall (1955), who distinguishes between contractual and residual saving, and Friedman (1957) who regards saving mainly as a residual. The only important exceptions are Lawrence Klein (Katona, Klein et al, 1954) who finds that discretionary saving ("residual" saving) is inversely related to purchases of durable goods, and Katona and Mueller (1958) who relate the incurrence of new debt to changes in contractual saving.



be a residual. It arises from the divergence of the spending unit's income from the usual level; that is, "permanent consumption" is a function of "permanent income". (Friedman also recognises a precautionary motive for saving; he gives evidence that entrepreneurial households save a larger proportion of their incomes than employee households, and attributes this to the greater instability of entrepreneurial income).

The data from the Edinburgh sample suggest that, far from being a residual, or even a precautionary measure, most saving by working-class families is towards planned future purchases, or arises from the fact that many types of payment made by the household are made at longer intervals than the income-receipt period,<sup>2</sup> for example, quarterly fuel bills, rates, mortgage payments, road tax and insurance premiums, and so on. (For a full description of the data see the Appendix at the end of this chapter). This is not to deny the validity of Friedman's theory, or of any other consumption-income adjustment model; such models are reasonably adequate for their purpose, which is to explain the discrepancies between the long-term or time-series and the short-term or cross-section consumption function. But in concentrating on the explanation of these discrepancies and on the analysis and prediction of the changes in the relation between consumers' total expenditure on all commodities, and their income, economists have tended to overlook some

<sup>2</sup> i.e. the interval of time between one income receipt and the next; in the case of British working-class families, this is of course only a week.

other interesting issues concerning the relationship between savings behaviour and the consumption of individual commodities. It is these that I shall be mainly concerned with in this chapter.

If a large part of households' saving is indeed a reservation of funds for planned future consumption, one would expect there to be important substitution effects between current expenditure on particular commodities and planned saving for particular future expenditures. Some types of saving, in other words, should be considered not as the antithesis of consumption, but at least in part as an extension of the commodity-expenditure stream. Of which types of saving is this true?

One may conveniently think of saving as being composed of several elements, each element representing a fund for a specific purpose. Several such elements will be funds for specific future purchases such as holidays and durable goods. These may be designated elements of functional saving. Another type of functional saving consists of money set aside for expected future liabilities (rates, fuel bills and the like). Saving to meet expected liabilities may be distinguished from true precautionary saving, which I would prefer to define as a desired liquid asset balance to meet unexpected liabilities. A third element of saving is contractual saving - consisting of life insurance, S.A.Y.E., and so on. Contractual saving may be functional or pre-

cautionary, or it may be carried out for the sake of the interest received.<sup>3</sup> But its salient characteristic is that the amount saving cannot be cut back without losing some of the benefits which were envisaged when the project was started. Thus, substitution between current expenditure and a contractual saving project once started will generally take place only when the consumer is having great difficulty in making ends meet. Consequently, I shall not include contractual saving in this discussion of substitution between functional saving and current expenditure.

A fourth element of saving is a residual element - which may be defined as an unplanned shortfall of expenditure below current income. Money "left over" in this way may be transferred to the functional-saving fund.

<sup>3</sup> An interesting aspect of this shown by the data from the Edinburgh sample, is that some families use contractual saving, in the form of short-term endowment policies, as a means of saving for specific purchases. One young couple had had such policies whilst saving up to get married, and had now taken out a longer-term life insurance policy to use as security against a future mortgage when they bought a house. They thought this a good way of saving because they could receive tax relief on the premiums. But for most couples in the sample, tax relief was probably not an incentive to undertake this form of saving; they paid little tax on the whole, and were not at all tax-conscious; many indicated that they had insufficient knowledge of how their income tax was worked out to think of how they might save tax. Rather, life insurance and endowment policies were popular because they forced people to save, in the knowledge that part of the benefit would be lost if they did not keep it up. Endowment policies, frequently in the children's names, were used to save up for the expenses associated with children leaving school and getting married, and more rarely for general household purchases like furniture. Such policies might run for five, ten or fifteen years.

Functional saving may be thought of as interchangeable with particular present expenditures. I shall now attempt to show that fluctuations in the aggregate savings/income ratio may be partly explained by shifts between functional saving and current expenditure.

The effect of changes in functional saving in the aggregate savings/income ratio

Consumers' purchases may be divided into two types; those made with money from one income-receipt period, and those for which money is saved from one income-receipt period to another (like durables and holidays). The latter may be termed "deferred expenditures". How goods are divided between these two categories will depend not only on the availability of consumer credit, but also on the consumer's income, the length of the income-receipt period, and the percentage of income devoted to commodities which may become deferred expenditures. The influence of the length of the income receipt period is simple; if a man is paid weekly, he will need to put money aside from more than one income receipt period for a monthly bill, but if he is paid monthly, he will not. That is, the weekly paid man must save for this payment, but the monthly paid man need not.

To understand the influence of the consumer's income and the percentage of income devoted to certain commodities, on the amount of functional saving, one must first consider what sort of purchases become deferred expenditures. Food and tobacco are immediate and necessary demands on a consumer's income, and they are available in small quantities, so that expenditure cannot be postponed, nor is there any need to save up for these things. With

durable goods and clothing, the situation is rather different; purchases can very often be postponed, and the amount of money which a consumer can spare in one income receipt period to buy a coat or a television set will very often not be enough to buy one such article. He must therefore save up for such purchases, unless credit is available. The influence of income on the need to save is now apparent. The smaller a consumer's income, the greater the proportion of it which is taken up with purchases of food and other non-postponable expenditures. The poor consumer is more likely than the rich consumer to find that the amount of money he can spare, in any one income-receipt period, for postponable purchases such as a coat, is smaller than the amount required to buy one article. For example, a man earning £20 per week may only have £1 per week available for clothing, so he must save for 10 weeks to buy a £10 coat. But a man earning £50 per week may be able to afford a £15 or £20 coat from one week's earnings. This is not to say that the poor save more than the rich; for only one of the four elements of saving is being considered here, and moreover, the use of credit is more widespread amongst the lower income groups, and a smaller proportion of low incomes is devoted to expenditures other than food and rent. All that is argued is that if there were no consumer credit, or if there were no inter-income-group differences in the use of credit, lower income consumers would be more likely than higher income consumers to finance a purchase of a given type and size by functional saving.



Given non-availability of credit, and given the consumer's income and income-receipt period, functional saving will generally be a greater proportion of income, the greater the percentage of expenditure devoted to postponable purchases. Thus, if the man in the last example who spent £1 per week on clothing decided to spend less on food and more on clothing, he would add his extra "expenditure" on clothing to his functional saving. In general, if a consumer starts to buy less of those commodities which are financed from one income-receipt period, and buy more of some new commodity which was to be saved for, his savings/income ratio will rise. What effect will such behaviour on the part of many consumers have on the aggregate savings/income ratio?

Effect of an increase in functional saving on the aggregate savings ratio

I now intend to show that the effect of more functional saving on the aggregate savings/income ratio will be a short-run increase in aggregate saving. But in the long run, the aggregate savings/income ratio will fall back to the previous level. It will reach the previous level again when the volume of dis-saving per unit time by households who have saved up their money and are now spending it on the new commodity, is equal to the volume of saving for the new commodity, per unit time, by other households.

This is made clear by the following example. Suppose that all consumers' expenditure is taken up with two commodities, A and B, both being goods which are financed within one income-receipt period, and for which, therefore,



no functional saving is required. C, a new commodity, which has to be saved for, then comes onto the market. Prior to this, consumers spent half their incomes on A and half on B. Now, they will spend half their incomes on A, a quarter on B and a quarter on saving up for C. The savings/income ratio therefore rises in the first place from zero to anything up to 25%, depending on how fast households take up saving for C. It later falls back to zero. Or, if households' first purchases of C are bunched together giving rise to stocks of C which will tend to be replaced together, replacement booms (analogous to replacement booms in industrial investment) will take place, and will cause regular fluctuations in the savings/income ratio. The tables below illustrate these two alternative effects; the first shows the savings/income ratio gradually rising and then falling to zero again, and the second shows cyclical fluctuations in the savings/income ratio.

(1) Savings ratio rises and returns to zero once

This illustration follows the behaviour of four households, each with an income of \$100 per period. One unit of C is assumed to cost \$100. Households are assumed to take up saving for C one after the other, rather than all together, and to start saving up for the next purchase of C as soon as they have bought one unit of it. C becomes available in period 2.

Period	Households								All	
	1	2	3	4	1	2	3	4	Consump- tion	Saving
1	100	0	0	0	100	0	0	0	400	0
2	75	25	0	0	100	0	0	0	375	25
3	75	25	25	0	100	25	0	0	350	50
4	75	25	25	25	75	25	25	0	325	75
5	175	- 75	25	25	75	25	25	25	400	0
6	75	25	- 75	25	75	- 75	25	25	400	0

Thus, household 1 buys its first unit of C in period 5, having started saving in period 2; household 2 makes its first purchase of C in period 6, having started in period 3, and so on. As soon as dis-saving of C-savings begins, the aggregate savings/income ratio falls again.

(2) Savings ratio fluctuates indefinitely

Assumptions as in (1) except that households all begin saving at once.

Period	Households								All
	1	2	3	4	Consump- tion	Saving	Consump- tion	Saving	
1	100	0	100	0	100	0	400	0	0
2	75	25	75	25	75	25	300	25	100
3	75	25	75	25	75	25	300	25	100
4	75	25	75	25	75	25	300	25	100
5	175	- 75	175	- 75	175	- 75	700	- 75	- 300
6	75	25	75	25	75	25	300	25	100

(The figures of periods 2 - 5 inclusive are repeated ad infinitum)

In this second type of example, fluctuations are likely to die out gradually as replacements of C by different households get out of step with each other; so that eventually dis-saving will be spread evenly over all period instead of being concentrated in every fourth period.

How general are these examples? Generally, the amount of functional saving for any commodity will be given by the equation:

$$S = D \cdot n \cdot Y - \frac{n}{R} \cdot P \cdot D \cdot Y \quad \dots\dots\dots (1)$$

where:  $Y$  = average income of households,

$D$  = fraction of each household's income set aside for future purchases in each period,

$n$  = number of households,

$R$  = average number of income-receipt periods over which savings for one purchase is made (counting the period of disbursement)

$P$  = the price of a unit of the commodity saved for, divided by the amount saved in each period - i.e. the number of one-period savings required to accumulate sufficient money for a purchase.

If consumers buy the saved-for commodity in the same income-receipt period as they finish amassing the money for it,  $P$  will be equal to  $R$ . If, on the other hand, functional saving leads to money being saved up for a purchase and then held for one or more income-receipt periods (say while the consumer is deciding exactly what to buy), then  $R$  will be greater than  $P$ .

Aggregate saving arising from individuals' functional saving will be greater than zero in the long run only where:

$$D \cdot n \cdot Y > \frac{n}{R} \cdot P \cdot D \cdot Y \quad \dots\dots\dots (2)$$

If, on the other hand:

$$D \cdot n \cdot Y = \frac{n}{R} \cdot P \cdot D \cdot Y \quad \dots\dots\dots (3)$$

then aggregate saving arising from functional saving will be zero. This equation may be simplified to:

$$1 = \frac{P}{R}$$

$$\text{or } P = R$$

The condition for aggregate saving to increase in the long run as a result of functional saving (condition 2) is only satisfied if  $R$  is greater than  $P$ , in other words if functional saving gives rise to idle liquid asset balances, because of a lag between accumulating money for a purchase and actually making it.

I do not intend to investigate, or even to speculate, whether such a lag exists. The purpose of this argument is merely to show that changes in the volume of functional saving can temporarily affect the aggregate savings/income ratio, and therefore that shifts between functional saving and current expenditure are a matter of interest. To sum up, an increase in functional saving will always lead to an increase in the aggregate savings/income ratio in the short run, for the duration of the period during which dissaving by consumers who are making purchases with their savings is not yet large enough to cancel out the effect on the aggregate savings ratio of other consumers. The length of this high-saving period will depend on the value of  $P$  (the time it takes consumers to save up), and on the speed at which consumers react to the initial stimulus which leads them to shift from current expenditure to functional saving. The importance of such effects will be greatest where  $P$  is very long. For example, if there is a reduction in the supply of rented housing, some people will start to save to buy

their own houses, and this may take them several years. It may therefore be several years before disbursements of such saving are equal to the volume of new saving. An increase in the deposit required for hire purchase contracts, on the other hand, will affect the aggregate savings ratio for a much shorter time, because it does not take people so long to save the deposit for, say, a washing machine as it does to save for a deposit on a house.

#### Effects of a reduction in functional saving

In these examples I have discussed only shifts from current expenditure into functional saving. Will the converse effect, that is, a short-term reduction in the aggregate savings ratio, take place if functional saving is reduced and current expenditure increased? It is clear from equation 1 above that such a reduction will only take place if new saving for, say, house-buying, is cut back faster than disbursements of savings which have been made for this purpose. This will be the case if all those consumers who were ready to buy a house do buy one or use their saved-up funds for some other purchase. But it may not be the case if some of them continue to hold their savings. It is however possible that the rate of disbursement will rise (and therefore the aggregate savings ratio fall) if consumers who would previously have held their money and continued saving, abandon their partly completed house-saving project and spend their accumulated funds straight away. The effect of a shift from functional saving to current expenditure is therefore more complex to predict than the other way round, and I shall therefore concentrate in the analysis which follows on the



simple case of shifts from current expenditure to functional saving.

Summary of the effects of changes in functional saving on the aggregate savings ratio

The following conclusions have therefore emerged from this section:-

- (1) A large proportion of working-class families' saving is made to fulfil plans for future purchases, or to meet future expected liabilities (like rates and road tax).
- (2) An increase in functional saving and a corresponding decrease in current expenditure may occur as a result of:
  - (a) a reduction in the expected price of the future purchases being saved for;
  - (b) an increase in price of currently purchased commodities;
  - (c) a change in consumers' preferences involving a substitution effect towards commodities requiring saving and away from commodities financed within one income-receipt period;
  - (d) an increase in the price of credit, that is, the interest rate;
  - (e) a decrease in the availability of credit not involving a change in the interest rate.
- (3) Such an increase in functional saving will lead to a temporary rise in the saving/income ratio.
- (4) Similarly, a decrease in functional saving with a corresponding increase in current expenditure (which may arise from the same factors as

listed in (2) operating in reverse) will probably lead to a temporary reduction in the savings/income ratio. But the effects of this opposite type of shift are more difficult to determine.

#### Uses of the analysis of functional saving

(5) A shift from current expenditure to functional saving will not lead to a permanent increase in the savings/income ratio unless there is a time-lag of at least one income-receipt period between accumulating sufficient funds to make the planned purchase and actually making it. If there is such a time-lag, there will be a small permanent increase in the savings/income ratio.

To enable to predict the size of changes in the savings/income ratio arising from changes in functional saving might be of considerable use in the following circumstances:-

- (a) when attempting to predict the effect of pre-budget speculation by consumers. If consumers expect the price of some commodity they plan to buy, to go down as a result of a tax reduction, they may wait until the tax reduction occurs before buying. This constitutes an increase in functional saving in response to a change in the expected future price of a commodity.
- (b) when attempting to predict the size of a change in consumers' demand arising from an increase in the price of consumers' credit. In this instance, the consumer may be considered as facing

an increase in the current price of a commodity (a credit-purchased good), for which he may therefore substitute a future purchase of a commodity which will have to be saved for.

In order to predict the size of changes in the savings/income ratio arising from these sorts of changes in consumer behaviour, one must first be able to predict the size of the substitution effects themselves. The next section will be devoted to outlining a simple method of doing this.

A mathematical analysis of substitution between present and future consumption

How can one predict the size of change in functional saving? (such as will arise from one of the stimuli listed under point 2 of the conclusions of the last section). To establish empirically a set of quantitative relationships between functional saving and any of the stimuli listed would at first sight require extensive observations of functional saving; in other words, a good deal of survey work. At least some of this sort of work could be avoided if one could construct, on the basis of known parameters of consumer behaviour, hypothetical quantitative relationships between the stimuli and functional saving; and from these, hypothetical relationships between the stimuli and the aggregate

savings ratio, which could then be tested on actual data.<sup>4</sup>

How, then, can one construct hypothetical relationships between stimuli of the type mentioned and functional saving, on the basis of known parameters of consumer behaviour? What known parameters are required to do this?

In this section, I want to show how one can use observations of choices between the present consumption of two commodities,  $x$  and  $z$ , to predict how consumers will allocate or reallocate their income between future purchases of  $x$  and current purchases of  $z$ . I shall show that this is possible if one knows individuals' rate of time preference for money, and I shall therefore suggest a way of finding this rate of time preference, also from very simple observations. Finding the rate of time preference in this way may additionally be of use for cost-benefit analysis, though there are some problems concerning this, which I shall discuss later.

#### The nature of time preference rates

The first stage in this analysis is to consider the time-element in the consumer's evaluation of utility. That is, the simple fact that for most people "jam today" is preferable to "jam tomorrow". Thus, the utility of

<sup>4</sup> The nature of the relationships between functional saving and change in the aggregate savings ratio has already been established in the first section of this chapter. The only unknown parameters required to establish this relationship are  $P$ , which could be found quite simply from survey work, and the length of time consumers take to adjust their functional saving following a stimulus to change it. The latter period may be assumed to be equal to the period during which consumers' current demand appears to be changing in response to the same stimulus, so that some approximate values could be assigned to this parameter by examining changes in sales of commodities for which functional saving is thought to be a substitute.

future consumption falls short of the utility of present consumption by an amount which increases the further ahead in time the future consumption is to be enjoyed. This shortfall may be thought of as a rate of discount, and expressed as a percentage of future utility. Thus one may write:-

$$U_{pi} = U_{fi} / (1 - r_i)^n \dots\dots\dots (4)^5$$

where  $U_{pi}$  is the future utility of a unit of the  $i$ th good,

$U_{fi}$  is the future utility of a unit of the  $i$ th good, as perceived at the present time

$r_i$  is the rate of discount or, as it is often called, rate of time preference, for the  $i$ th good, for one period

and  $n$  is the number of periods between the time at which the future unit of the  $i$ th good will be enjoyed, and the present.

There is no reason why the rate of time preference should be the same for all commodities. It will be greater, the greater is the uncertainty surrounding the eventual enjoyment of the good in question. This uncertainty could be related to the demands which other members of the family will make upon the saving which one member makes for a certain purchase; or it could be related to expectations concerning the price and availability of goods.

Ramsey (1928) maintains that since consumption now may reasonably be assumed to have greater utility for the consumer than the same amount of consumption in the future, consumers will only save if the rate of interest thereby earned is greater than their rate of time preference. Yet,

<sup>5</sup> This is the familiar compound interest formula used in assessing the marginal efficiency of investment (see for example F. S. Broomer, "Macro-economics" (1962, p.151).



as I have already pointed out, most working-class families hold short-term savings in a non-interest-bearing form (at home or in a current bank account) or in a very low-interest-bearing form (e.g. the Post Office Savings Bank) and they mostly hold these savings simply in order to make future purchases. Such saving is their only method of making some types of purchases without paying a high price for credit, so in a sense they may be forced to save if they want to buy those particular goods. The utilities which are obtained from functional saving are different in nature from the utilities obtained from current consumption - that is, different goods are involved - so that it is not necessary to posit an incentive to save in the form of a positive subjective rate of return. If a man saves up to buy a car, whilst not obtaining interest on his savings while they accumulate, the implication must be that a car at a given future time is expected to bring at least as much utility as the other consumption goods meanwhile foregone. Or, to think of it in a different way, the man is prepared to receive a negative "subjective rate of return" on his savings in order to obtain a car.

Time preference rates and consumers' equilibrium in a two-commodity model

Let us now consider in more detail the way in which the consumer compares present and future utilities. We can now make use of the well-known proposition (8) that in an equilibrium position of consumers' choice:-

$$\frac{U_x}{P_x} = \frac{U_z}{P_z} \dots\dots\dots (5)$$



where  $x$  and  $z$  are two commodities,  $U_x$  the marginal utility of  $x$  and  $P_x$  its price. Alternatively, this may be formulated:-

$$\frac{U_x}{U_z} = \frac{P_x}{P_z} \dots\dots\dots (6)$$

Using  $x_p$  and  $x_f$  to denote the present and future marginal utilities of  $x$ , and  $P'_x$  to denote the expected future price of  $x$ , and  $r_x$  to denote the rate of time preference for  $x$ , when the consumer is making a choice between saving up for  $x$  and buying  $z$  now, the optimum amount of saving towards  $x$  per unit of time will be reached when:-

$$\frac{U_{xf} / (1 - r_x)^n}{P'_x} = \frac{U_z}{P_z} \dots\dots\dots (7)$$

But this is not strictly correct, for if the marginal utility of  $x$  is discounted, its future price should also be discounted. To discount its price, one is concerned with the utility of all the goods which the money could be used for if it were spent now instead of saved. The appropriate time preference rate by which to discount the price is therefore the time preference rate for money; and it seems reasonable to assume that this is theoretically equal to a weighted average of the time preference rates for all individual commodities.<sup>6</sup>

<sup>6</sup> Money is considered here as a medium of exchange only; hence the only consideration is the fact that purchasing power now is worth more than the same amount of purchasing power in the future. The time preference rate for money as I have defined it should, strictly speaking, be reduced by the interest rate which money could earn if lent. But I do not think this point is material in considering short-term saving by working class families, which earns little or no interest.

However, this is not the easiest way to find the time preference rate for money in practice, as I shall show later.

If  $r_m$  stands for the time preference rate for money, and  $r_x$ , as before, the corresponding rate for  $x$ , then the above equation can be revised thus:-

$$\frac{U_{xf} / (1 - r_x)^n}{P'_x / (1 - r_m)^n} = \frac{U_z}{P_z} \dots\dots\dots (8)$$

or, alternatively formulated,

$$\frac{P'_x / (1 - r_m)^n}{P_z} = \frac{U_{xf} / (1 - r_x)^n}{U_z} \dots\dots\dots (9)$$

I shall refer to the term  $P'_x / (1 - r_m)^n$  as the "subjective present cost" of the future purchases of  $x$ .

#### Use of the concept of time preference rates to predict changes in functional saving

How does this set of concepts help to predict changes in functional saving? Let us return to the list of stimuli which may lead people to change their functional saving, and examine the type of prediction problem which each presents:

- (a) functional saving may increase because of a reduction in the expected price of the future purchase which is being saved for. The first problem here is that consumers' expectations of future prices may be very different from those of the economist. But there may be widespread agreement where a company announces price changes (as often happens with cars) or where there are reports in the mass

media about the effect on prices of announced or expected tax changes. If some plausible assumption can be made about what changes in prices consumers expect, the corresponding changes in functional saving can be predicted by means of the discounting concepts, using an ordinary demand function. In other words, one may assume that the amount a consumer will save, per unit time, for future purchases of  $x$ , when expecting the price to be  $P'$ , will be equal to the amount of  $x$  he would be expected to buy now at a price  $P$ , where:

$$P = P'_x / (1 - r_m)^n$$

- (b) functional saving may increase because of an increase in price of currently purchased commodities, leading to a substitution of functional saving for deferred-expenditure-commodities in place of currently financed commodities. To predict the size of such changes in functional saving, one must know the cross-elasticity of substitution of present consumption of  $x$  with respect to a current price change in  $z$ .<sup>7</sup> All that is then necessary is to apply this cross-elasticity, again making use of the formula for the subjective present cost of future  $x$ . In other words, if we know the change in current consumption of  $x$  which will occur when the price

<sup>7</sup> The next chapter develops a simple method of computing large numbers of cross-elasticities.

ratio changes from  $P_z/P_x$  to  $P_z + dP_z/P_x$ , we can say that this is equal to the change in functional saving which will occur with the same price ratio change,<sup>8</sup> where:

$$P_x = P'_x / (1 - r_m)^n$$

- (c) A substitution of deferred for current expenditure may occur because of a change in tastes, but this is by definition not predictable;
- (d) An increase in the price of credit may cause an increase in functional saving. In this case, the consumer is weighing up the relative utility of a credit purchase of  $x$  at a higher price than before, and a future purchase at the cash price which remains constant. For this purpose,  $x$  purchased now on credit may be considered a different "commodity" from "future  $x$ ", and then the problem can be dealt with as a problem of type (b), with credit-purchase  $x$  taking the place of  $z$ .
- (e) A reduction in the availability of credit may increase functional saving by forcing a substitution of deferred purchases for current credit - financed purchases. If it is assumed that all credit purchases require a cash deposit, credit restriction will leave some consumers with surplus funds. For example,

<sup>8</sup> That is, the combination of present  $x$  and present  $z$  which the consumer chooses given  $P_z$ ,  $P_x$  is the same as the combination of future  $x$  and present  $z$  which he would choose, given the same income, the same  $P_z$  and a subjective present cost of future  $x$  equal to the  $P_x$  of the first case.

if the minimum percentage deposit for hire purchase of cars is raised, households who had saved up just enough to make the old deposit will be faced with the choice of continuing to save for the new, higher deposit, or spending their savings on something else. If one can assume that the best substitute for a credit-purchased car now is further saving towards a car, consumers in this position are only deterred from using all of their "surplus" to save for a car by the disutility of saving. It therefore seems reasonable to argue that their saving for cars will increase, (over what they would have saved in the next period but for the credit restriction) by the amount of the "surplus" less a sum  $D$ , where  $D$  is the reduction in demand for credit-purchased cars which would occur if their price went up by an amount equal to the difference between the actual credit price of a car and the subjective present cost of a future car. In other words, the increase in functional saving for  $x$  amounts to:

$$S - C_x E \left( (P' / (1 - r_m)^n) - C_x \right) \dots \dots \dots (10)$$

where:

$S$  is the "surplus", the difference between the value of credit purchases of some good  $x$  which consumers made before the credit

restriction and the maximum value of credit purchases of  $x$  now possible for them, if they do not reduce their expenditure on other commodities<sup>9</sup>

$E$  is the price elasticity of demand for credit-purchased  $x$ ,

and  $C_x$  is the credit price for  $x$

Having outlined the reasons why functional saving may increase, and proposed a method of prediction in each type of situation (except (c), where no prediction can be made), the problem now is how to find  $r_m$ . If this parameter were known, the expression  $P'_x / (1 - r_m)^n$  could be solved.

How to find the time preference rate for money

A conventional consumer preference diagram showing "future  $x$ " and "z" will now be considered (See Fig. 1 below).

Fig. 1

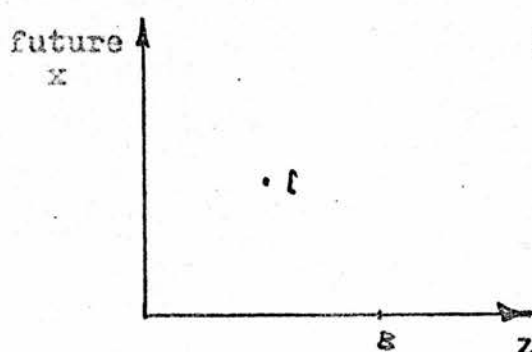
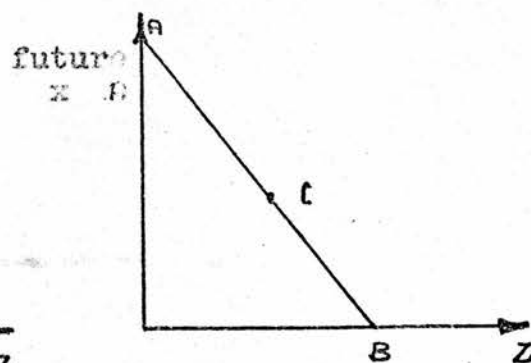


Fig. 2



<sup>9</sup> Just as it was assumed that saving for  $x$  is the next best use for funds which cannot now be used for a cash deposit on a credit purchase of  $x$ , it is assumed here that continued saving for  $x$  is of smaller disutility than reducing expenditure on other commodities in order to find the deposit. Both these assumptions are corollaries of the hypothesis that functional saving for a given commodity and its current purchase are closer substitutes for each other than any third use of money.



Given a particular income,<sup>10</sup> an expected future price of  $x$ , and a present price of  $z$ , the consumer will choose some combination of future  $x$  and  $z$  which is represented by the point  $C$ . This point must lie on some price line representing a budget constraint. Such a price line will represent a particular ratio of  $P_z$  to  $P'_x / (1 - r_m)^n$ . The  $z$ -end of the price line,  $B$ , can easily be determined; it is the number of units of  $z$  which the consumer could buy, if he spent all his resources on  $z$ , or, the consumer's income divided by  $P_z$ . Both the consumer's income and  $P_z$  are given, so  $B$  can be found. The "future  $x$ " end of the price line cannot, however, be found by the same means as  $B$ , simply because the subjective present cost of future  $x$  is unknown. It is, however, simple to find the other end of the price line, because two points on it are already known,  $B$  and  $C$ . Drawing a line through the two known points determines the "future  $x$ " end,  $A$ , as shown in Fig. 2. The point  $A$  represents a certain number of units of future  $x$  - the number which the consumer could obtain if he saved all his income for future  $x$ . We then have:

$$A = \frac{Y}{P'_x / (1 - r_m)^n}$$

Since  $r_m$  is the only unknown in this equation, its value can now be found. (Where  $n$  is an even number, a negative solution as well as a positive one will be found, but the negative one may be rejected as theoretically implausible).

<sup>10</sup> As is usual in the analysis of consumer preference, "income" is taken as the total resources the consumer has available to spend on the two commodities in question, holding his other expenditures constant.

Obviously a number of such observations would be necessary in order to obtain a reliable estimate of  $r_m$ , and only by experiment could one find how consistent would be estimates derived from different observations. Once  $r_m$  is known, the predictions of changes in functional saving discussed earlier can actually be made. Some points must be considered, concerning the nature of and variations in this:-

- (1) one may expect  $r_m$  to be culturally determined; firstly, it will be determined by the individual's preparedness to forego present consumption for future consumption. This willingness will be inversely related to  $r_m$ . Secondly, it will be influenced by the degree of uncertainty surrounding the use of saved money for the purpose originally intended. Uncertainty may arise from two sources; one is a lack of sufficient liquid assets to meet contingencies. Thus, uncertainty will be greater, the smaller the level of liquid assets and the greater the unpredictability for the household of the relationship between its future expenses and future income. Hence,  $r_m$  will be greater for poorer families, and those with irregular income. But at the same time, those who have irregular incomes and can afford to save, will tend to keep a high level of liquid assets, as has been shown by Friedman's work on entrepreneurial groups (1957). Irregular income, in better-off groups capable of keeping a con-

tingency fund, will therefore have two different effects on  $r_m$  which may cancel each other out. Secondly, uncertainty about the availability of saved money for the purpose intended will arise from the possibility that other members of the family may make claims to it for other purposes. It has already been pointed out that couples with the A-type house-keeping system are more likely to undertake joint saving for agreed purposes than the P-type couples.

- (2) Because  $r_m$  is culturally determined, one may expect it to have a considerable variability with income levels, budgeting arrangements and values relating to thrift or forward planning of financial affairs. But also, one would expect it to be reasonably constant for considerable periods of time.
- (3)  $r_m$  is not a concept which will be subjectively recognised, any more than is marginal utility or its maximisation. But provided  $r_m$  can be found empirically to have some consistent value, there is no reason why one should not use the concept in a predictive model.
- (4) To the extent that money may be considered by the household as an interest-bearing asset - for example, where saving takes the form of savings bank deposits or endowment policies -  $r_m$  will be reduced by the rate of interest payable on such assets. If, indeed,  $r_m$  were found

to be positive, one would conclude that the rate of interest received by the household on its savings, exceeded the negative rate of discount arising from the disutility of foregoing present consumption for future consumption.

#### Summary and conclusions

This chapter has demonstrated the importance of considering some part of saving as an extension of the commodity chain rather than as the antithesis of consumption. The Edinburgh survey data suggest that by far the greater part of saving by working-class families is saving towards specific future purchases.

Changes in functional saving may partially explain fluctuations in the aggregate savings/income ratio. Whilst decreases in functional saving have a complex effect on this ratio which is difficult to predict a priori, increases in functional saving can easily be shown to create a temporary rise in the aggregate savings ratio, which should not be too difficult to predict by the method outlined here. This method has two stages: the prediction of the size of change in functional saving which will result from a given price or interest rate change, and then the prediction of the effect which this change in functional saving has on the aggregate savings/income ratio.

To test this predictive method would be too large a project to enter into here; but this chapter may serve to indicate the potential value of further research in this direction.

I mentioned earlier that this method of finding the individual's rate of time preference for money could be of use in cost-benefit analysis. If some assessment of the individual rate is thought to be relevant to the problem of establishing a social rate of discount, the method presented here offers some advantage over Eckstein's (1961). Whereas his method of finding the individual's time preference rate is based on a hypothetical question, this method is based on consumers' actual behaviour. However, I tend to agree with Pigou (1932) and Dobb (1960) that the individual's time preference rate is not a suitable basis for determining a social rate of discount to be used in public investment decisions, because, as they point out, the individual's decisions are "myopic" - they embody less concern for the future than public authorities should have.

APPENDIXPURPOSES FOR WHICH SAMPLE COUPLES SAVED

<u>Purpose of saving</u>	<u>No. of couples in main sample</u>	<u>No. of control couples</u>
Money held as a reserve, "in case of emergencies"	7	0
Permanent nest-egg; for old age, or as an interest-bearing invest- ment	4	1
Money set aside to pay bills expected quarterly or annually	22	1
Money set aside for holidays	31	5
Saving to buy durable goods, including houses	11	1
Saving to buy Christmas presents	6	0
Saving for house im- provements	2	0
Saving to pay off mortgage	2	0
Saving for children's education	1	0
No saving	13	1

Note: since many people saved for more than one purpose, the totals of the columns are greater than the number of couples. Altogether 83 of the 90 couples in the main sample, and 6 of the control couples, answered this question. Some couples gave more than one reason for saving.



CHAPTER 8NEUTRAL WANT ASSOCIATION AND THE DIVISION OF  
EXPENDITURE BETWEEN HUSBAND AND WIFE

This chapter is intended to show that the findings on the division of income within the family in Chapter 5, may be of use in economic forecasting. In this section I have drawn heavily on the work of I. F. Pearce (1964) who suggests ways in which the forecasting of consumers' demand could be improved by dividing the very large range of consumer goods in the economy into categories according to the type of demand function they have. He entitles these categories "neutrally want associated" groups of commodities. I begin by describing this concept as he presents it.

The Theory of Neutral Want Association

Pearce's theory concerns the problem of estimating empirically the cross-elasticities of substitution - the effects on the consumption of one good of the price of another. As an example of this concept, consider the effect on consumers' spending of a rise in the price of bread. Consumers will very probably buy less bread. Possibly, they may eventually spend the same amount of money on bread as they did before the price increase, in which case they will have a smaller number of loaves, but the amount they will have left to spend on other commodities will remain the same as before. Or they may spend less on bread than before the price increase, and spend some of the money which they formerly spent on bread, on biscuits, breakfast cereal, potatoes or anything else which they consider to be better deserving of their money. In this type of reaction, the

consumption of some other commodity or commodities will rise because of the increase in the price of bread. A third type of consumer reaction would be where the demand for bread was completely inelastic - say where bread is the only kind of food consumers can afford, and where they cannot make do with less food. Then, the physical quantity of bread purchased would remain the same despite the price increase, and consumers would have to economise on non-food commodities (or increase their income or get into debt). In this third type of reaction, the amounts of other commodities purchased would go down as a result of the increase in the price of bread (unless consumers increased their income or increased their indebtedness). In the second type of reaction on the other hand, the amount of other purchases would go up. The second type of reaction is more common, since there are very few commodities in real life for which demand is completely inelastic.

Clearly, the kind of commodities the purchases of which are most likely to be affected by increases in the price of bread, are those commodities which consumers consider close substitutes for bread, that is, other types of starchy food. Bread, being a food, is the sort of commodity which has a large range of substitutes. But what of commodities for which there are few substitutes? Such as matches, or petrol? In such cases, it becomes less clear from common sense what consumers would switch their expenditure to if the price of the commodity rises. If, for example, the price of petrol goes up, motorists are likely to make fewer journeys. This may mean that

they spend less money on petrol than they did before the price increase. The question is on what commodities will they spend the money they save? They may spend more on train fares, or on having groceries delivered which they previously went to fetch; or the economy on petrol may be regarded as a saving of expenditure on motoring for pleasure, in which case motorists may spend more on going to football matches or the cinema. This leads to the apparently strange conclusion that groceries (costing more because they are delivered) or cinema tickets, are seen by the consumer as a substitute for petrol. There is as much logic in this conclusion as there is in the intuitively more obvious proposition that travel by rail is a substitute for travel by car. In a sense, and a sense which is very important for economic theory, it may be said that groceries are a substitute for petrol. The converse, that petrol is a substitute for groceries, is also true; for if the price of groceries were to rise, one way of making economies in their direction would be to stop having them delivered.

In general, it may be said that a commodity  $i$  is a substitute for another commodity,  $j$ , if the consumption of  $i$  changes in response to a change in the price of  $j$ , and if this change in the consumption of  $i$  is in the opposite direction from the simultaneous change in the consumption of  $j$ . If, on the other hand, a change in the price of  $j$  leads to a rise in expenditure on both  $i$  and  $j$ , then  $i$  and  $j$  would be called complementary goods, not substitutes. Goods which are complements in this

empirical sense may, like goods which are empirically substitutes, be quite unrelated. Thus, (let us say for the sake of argument) a motorist may economise when the price of petrol rises, both by buying less petrol and by buying less cigarettes. Then petrol and cigarettes would be, empirically speaking, complementary commodities, although they fulfil quite different functions for the consumer. In general, a commodity  $i$  is a complement of another commodity,  $j$ , if in response to a change in the price of  $j$ , the quantities purchased of both  $i$  and  $j$  change in the same direction. These definitions of complements and substitutes are central to Pearce's theory.

Obviously some commodities are better substitutes for a given good than others. Margarine is the obvious substitute for butter; but a consumer who particularly disliked margarine might shift his expenditure to peanut butter when the price of ordinary butter rose; and others might substitute some commodity which was not a food at all. The relative magnitudes of the increases in quantities purchased of margarine, peanut butter, jam and various other things (as a result of the price of butter rising) might be interpreted as representing consumers' ranking of these commodities in order of their substitutability for butter. Margarine will show the largest increase because it is the most popular substitute, and those who spend their money on caviar instead will be rare indeed, so that the substitution response of the demand for caviar will be negligible.

The concept of a ranking of commodities in terms of their substitutability for the  $i$ th good leads Pearce to the

idea of classifying all commodities according to their substitutability for each other. To explain this idea, some algebraic terms are necessary:-

- $s_{ij}$  will represent the change in the amount of commodity  $i$  purchased, which results from a change in the price of commodity  $j$
- $c_i$  will represent the marginal propensity to consume  $i$

If income changes, the change in the amounts purchased of commodities  $i$  and  $j$  will be in the proportion:  $\frac{c_i}{c_j}$ . This ratio provides a standard against which to examine the magnitude of ratios of the type  $\frac{s_{iw}}{s_{jw}}$

to examine, that is, the ways in which the amounts purchased of  $i$  and  $j$  will change in response to the price change of a third good,  $w$ . It may be considered that  $i$  is a better substitute for  $w$  than  $j$  if:

$$\frac{s_{iw}}{s_{jw}} > \frac{c_i}{c_j} \dots\dots\dots (1)$$

But if  $j$  is a better substitute for  $w$  than  $i$ , then:

$$\frac{s_{iw}}{s_{jw}} < \frac{c_i}{c_j} \dots\dots\dots (2)$$

If  $i$  and  $j$  are equally good substitutes for  $w$ , then an in-between case arises where:

$$\frac{s_{iw}}{s_{jw}} = \frac{c_i}{c_j} \dots\dots\dots (3)$$

This last type of instance could occur where  $i$  and  $j$  have to be consumed jointly; where in other words, they



are logical complements like cars and petrol. More commonly, it could happen where  $i$  and  $j$  are goods which fulfil a function for the consumer quite different from the function of  $w$ . Suppose that when the price of butter goes up, the consumer does not decide to buy anything specific instead, but simply spends less on butter. At the end of the week he finds himself with a few more pence to spare which he had been accustomed to spending on butter; and he will spend these few pence on whatever takes his fancy, be it quite unrelated to butter. This could be a case where the substitution response to the increase in the price of butter - the effect of the consumer's economy on butter - is spread over a number of commodities no one of which would be considered by the consumer to be a better substitute for butter than any other of them. (In fact, he would not think of them as substitutes for butter at all). One could say of such a case that there is a group of commodities (namely the type of things which the consumer spends his left-over pence on, say ice-cream or magazines) no one of which is a better substitute for butter than the others. (Of any pair from this group of commodities, equation 3 above would be true). This group of commodities as a whole, might be a better substitute for butter, empirically speaking, than some other commodity group quite unaffected by the consumer's reaction to a change in the price of butter. Thus there arises the notion of a group of commodities (which one may label  $Q$ ), all the member goods of which are equally good substitutes for some non-member good  $i$ , and which, as a group, are either more or



less good substitutes for the good  $i$  than the goods in some other group  $R$ . Pearce defines groups of this kind by the use of the term "neutral want association". A group of commodities  $q_1 \dots q_n$  is said to be in neutral want association with another commodity  $x$  if:

- (1) no commodity in the group  $Q$  is a better substitute for  $x$  than any other commodity in the group  $Q$ .
- (2) all commodities in the group  $Q$ , and the group  $Q$  considered as if it were one single commodity, will be either better or worse substitutes for  $x$  than any commodity or group of commodities not belonging to  $Q$ .

These two parts of the definition may be summarised mathematically thus:

Statement (1) above is equivalent to:

$$\frac{s_{q_1 x}}{s_{q_2 x}} = \frac{c_{q_1}}{c_{q_2}}$$

(using the terms defined above)

Statement (2) above is equivalent to:

$$s_{q_i x} \neq s_{r_i x}$$

(where  $r_i$  stands for any commodity or group of commodities other than  $x$  which are not in  $Q$ )

and

$$s_{Qx} \neq s_{Rx}$$

(where  $Q$  and  $R$  stands for composite commodities, the group  $Q$  and the group of all other commodities apart from  $x$ )

### Uses of the theory of neutral want association

The important point about this notion of commodity groups outlined above is that it has an important potential for economic forecasting. This is because one may be able, by using this concept, to simplify the procedure of working out the cross-elasticities of substitution - the amount by which consumption of any good will change in response to a change in the price of another good. Since, in principle at least, a change in the price of any commodity may affect the demand for any other, not knowing the cross-elasticities may add significantly to errors of forecasting. Moreover, because there are many thousands of permutations of commodities, it would be very difficult to calculate any but the most obviously important cross-elasticities. The concept of neutral want association presents, therefore, a method of dividing commodities into groups, each of which reacts to changes in the prices of other goods as though the group were one commodity. By this means, the number of cross-elasticities needing to be calculated can be reduced to a small fraction of the total number of possible pairs of goods.

### The Concept of a Utility Tree

By a series of mathematical theories, Pearce develops the notion of neutral want association into the concept of a utility tree.<sup>1</sup> Such a tree is shown in Diagram 1. The meaning of the tree is as follows:

<sup>1</sup> The concept of a utility tree is also used by R. H. Strotz: see his "The Empirical Implications of a Utility Tree", *Econometrica*, Vol. 25, No. 2, 1957.

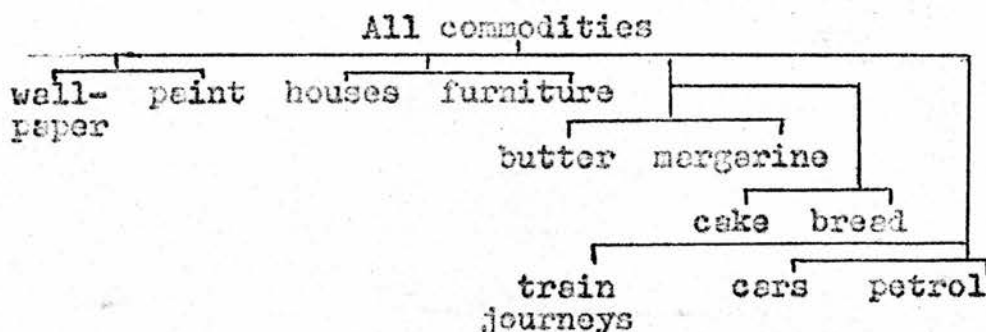
commodities fall naturally, by virtue of their functions for the consumer, into small groups such as margarine and butter, cars and petrol, houses and furniture, paint and wallpaper. Such groups of complements or substitutes are the obvious ones to specify the forming hypotheses (on purely intuitive grounds) as to what groups of commodities are neutrally want associated with other commodities. Thus, since cars and petrol satisfy a quite different sort of want from butter and margarine, it seems likely that cars and petrol will be equally poor, or equally good, substitutes for butter and margarine, and thus will be "neutrally want associated" with butter and margarine. Each of the initial pairs of goods - butter and margarine, cars and petrol, wallpaper and paint are in neutral want association with any other good. The same is true of any of the pairs of goods at the ends of the branches of the tree. Wallpaper, paint, houses and furniture together form a group which is neutrally want associated with any other good. The demand for each of the goods in a group changes, in response to a price change of a commodity outside the group, in the same proportion as expenditure on the group as a whole. Thus, if a change in the price of petrol causes an economy on food, so that food expenditure is reduced by 1%, expenditure on all goods in the food group will be reduced by 1%.

The utility tree clusters commodities according to their degree of substitutability for each other, just as a taxonomic tree clusters individuals according to the similarity of their characteristics. This substitutability

is defined and tested empirically according to the definitions given above.

Diagram 1

An example of a utility tree



It should be noted that nothing in the concept of the tree implies that the goods in the initial pairs, or "basic groups", as Pearce calls them, are close substitutes for each other. Some of the basic groups in this imaginary tree are complements - such as houses and furniture, cars and petrol - although some are substitutes - such as butter and margarine, bread and cake. Wallpaper and paint could be regarded as substitutes in some of their uses, and complements in others; empirically, they could be either complements or substitutes. Larger groups may also consist of complements (wallpaper, paint, furniture and houses) or substitutes (cars, and train journeys). The definition of neutral want association lies in the proposition that the demand for all commodities in a group  $Q$  should respond to a price change of a commodity external to  $Q$  so that the proportions of purchases  $q_1 \dots q_n$  remain unchanged. A common-sense classification of commodities into groups of substitutes, such as all kinds of food, all methods of travel, can help in constructing a utility tree only

in so far as such groups are more likely to react to external price changes than are heterogenous groups such as butter, petrol and wallpaper. It is obvious that in making some purchasing decisions the consumer is likely to think of all foods as one composite commodity. But it remains to be proved that such a common-sense grouping as "all food" is in neutral want association with other goods. This may be done by the mathematical procedures which Pearce develops. By means of such procedures, it is possible to identify groups somewhat larger than the intuitively obvious ones; for example there may be neutral want association between food and housing, taken together, and other commodities, or between travel and housing, taken together, and other commodities.

An alternative concept to that of the utility tree is that of nested sets of commodities. The tree pictured in Diagram 1 could be re-represented thus:-

Diagram 2

The utility tree represented as a system of nested sets



The goods in each circle are neutrally want associated with any of the goods outside it. Thus butter and margarine are neutrally want associated with all other goods, including bread and cake; but all food is neutrally want associated with all non-food goods. I shall refer to any group of commodities which is neutrally want associated with other goods as a "neutral group".

If such groupings can be determined empirically, the substitution responses of (say) butter, cake, margarine and bread can all be summarised under the heading of the single substitution response of food. This makes the computation of cross-elasticities possible for forecasting consumer demand. Pearce points out that it has other uses too; in working out the effects of changes in tariffs and exchange rates, and in helping to define oligopoly by answering the ever-problematic questions of what is a commodity, has it close substitutes and what are they.

Determination of commodity groups and computation of substitution responses

How can the groupings and their substitution responses be discovered? By algebraic manipulation of his basic propositions (ibid. section 4, chapter 4), Pearce derives the statement:-

$$s_{ij} = L_{ij} \cdot \frac{dx_i}{dy} \cdot \frac{dx_j}{dy} \dots\dots\dots (4)$$

where:

$s_{ij}$  as before, is the change in expenditure on  $i$  as a result of a price change of  $j$



$\frac{dx_i}{dy}$  is the marginal propensity to consume  $i$  (and similarly, where the subscript is  $j$ , the term means the marginal propensity to consume  $j$ )

$L_{ij}$  is a scalar, subscripted because there is a matrix of such scalars, one for every good and every price change

What this statement means, then, is that the change in demand for  $i$ , in response to a change in the price of  $j$ , is equal to some multiple of the product of the marginal propensities to consume  $i$  and  $j$ . According to the notation previously employed,  $i$  and  $j$  are individual commodities, but the same statement could be made of neutral groups. Of, for that matter, and this is the most useful sort of statement for forecasting purposes, the following statement could be made:-

$$s_{iQ} = L_{iQ} \cdot \frac{dx_i}{dy} \cdot \frac{dx_Q}{dy} \dots\dots\dots (5)$$

where  $Q$  is a neutral group

Pearce also proves that the same scalar  $L$  will describe the substitution response which takes place when the relation of the two commodities or groups is reversed, so that:

$$L_{iQ} = L_{Qi} \dots\dots\dots (6)$$

or, if  $i$  is a component of the group  $R$ ,

$$L_{iQ} = L_{Qi} = L_{QR} = L_{RQ} \dots\dots\dots (7)$$

Thus, if the neutral groups can be defined, the problem then is only to find the  $L_{QR}$ 's and the marginal propensities to consume each group (which must be computed from other parameters, not empirically defined, because one is trying to find what the marginal propensities to

consume would be if no trends in prices nor changes in tastes were present).

Pearce then defines a set of unknowns,  $k_1 \dots k_n$  for each commodity, which are proportional to the unknown marginal propensities to consume, so that:

$$\frac{C_i}{C_j} = \frac{k_i}{k_j} \dots \dots \dots (8)$$

The points of these unknowns is that they are used, firstly, to find which commodities are neutrally want associated, and secondly, to find the marginal propensities to consume.

These may be found empirically as follows. For each of three successive time-periods, say year 0 to year 1, year 1 to year 2, and year 2 to year 3, an equation can be set up for a pair of commodities i and j, involving their respective unknown k's. The form of the equation is:-

$$\frac{dx_i}{k_i} - \frac{dx_j}{k_j} = \frac{dp_j}{p_j} - \frac{dp_i}{p_i} \dots \dots \dots (9)$$

where  $dx_i$  is the change in demand for (expenditure on) i, in the time period to which the equation applies, and  $\frac{dp_i}{p_i}$ ,  $\frac{dp_j}{p_j}$  are the percentage price changes of i and j in the same period. These equations can then be

solved simultaneously. (Pearce suggests that the simplest way is to draw the three functions on a graph and see if and where they all three cross). Pearce proves (ibid. pp.213-215) that if there is one solution for each k, consistent with all three equations, then the two commodities i and j are a neutral group, and the k's

are found. If there is no consistent solution (i.e. if the functions cross on the graph at two or three points, or not at all), then the two commodities are not a neutral group. By the use of such equations, therefore, basic neutral groups may be found and their  $k$ -values at the same time.

The same type of equation as (9) can in principle be used to test whether composite commodities form a group at the second or a higher level in the utility tree. Thus, if it is found that bread and cake constitute a neutral group, and that butter and margarine constitute a neutral group, one could see whether the sub-group bread-and-cake is in a larger neutral group together with butter-and-margarine. But this can only be done if one has a way of defining the price changes of the composite commodities. Pearce's theory demands that the price change of a composite commodity should be a weighted average of the price changes of the individual goods, the weights being proportionate to the marginal propensities to consume. Thus the weights to be used in defining the average price change for the group bread-and-cake, could be  $k_{\text{bread}}$  and  $k_{\text{cake}}$ , which will be known from the first-stage equation.

The same type of equation can be used to find the  $k$ 's all the way through the utility tree. This procedure will eventually lead to a stage here one knows, to take the earlier imaginary tree as an example,  $k_{\text{housing and food}}$  and  $k_{\text{travel}}$ . Denoting these two groups by the subscripts Q and R respectively, it is true that:

$$\frac{k_Q}{k_R} = \frac{c_Q}{c_R} \dots\dots\dots (10)$$

and also, assuming no saving, that

$$c_Q + c_R = 1 \dots\dots\dots (11)$$

since these two groups together cover all commodities. The known  $k_Q$  and  $k_R$  can be used to find  $c_Q$  in an equation of the form:

$$\frac{k_Q}{k_R} = \left( \frac{c_Q}{1 - c_Q} \right) \dots\dots\dots (12)$$

Once  $c_Q$  is known,  $c_R$  can be found from equation (11). In a real example where there is some saving, either saving must be treated as a commodity, or the overall average propensity to consume must be known (and put in place of unity in equation 11 and 12) or total expenditure may be used in place of income. In view of the arguments used in the last chapter, the first approach is preferable.

Having got this far, it is only necessary to find the L's for all pairs of groups, and then the substitution responses may be calculated easily from equation 4, which may be re-written with reference to commodity groups as follows:-

$$s_{QR} = \frac{dx_Q}{dy} \cdot \frac{dx_R}{dy} \cdot L_{QR} \dots\dots (13)$$

The L's are found by means of another set of equations, of the form:

$$k_Q / \frac{dx_Q}{dy} = \sum \frac{1}{W} C_B L_{AB} \dots\dots (14)$$

where s is the set of composite commodities added into the utility tree between i and the "root" representing

all commodities. (See Pearce, *ibid.*, p.201). This set includes any composite commodity of which  $i$  is a part;  $i$  may be a simple or a composite commodity  
 -  $R$  is the composite good of which  $i$  is a component.

I shall now, following Pearce, label  $L_{RS}$  according to the composite commodity or "group" which includes both  $R$  and  $S$ . Thus:-

$L$  (wallpaper and paint) means  $L$  of wallpaper with paint or vice versa

$L$  (houses and furniture) means  $L$  of houses with furniture or vice versa

$L$  (housing goods) means  $L$  of wallpaper and/or paint with houses and/or furniture

$L$  (all non-travel goods) means  $L$  of food (or any component of the food group) with housing goods (or any component of the housing goods group)

Some illustrations can now be given of the type of equations given above, such as:-

$$k_{\text{butter}} / c_{\text{butter}} = c(\text{starch foods}).L(\text{food}) + c(\text{housing goods}).L(\text{non-travel}) + c(\text{travel}).L(\text{all})$$

$$k_{\text{food}} / c_{\text{food}} = c(\text{non-travel}).L(\text{non-travel}) + c(\text{travel}).L(\text{all})$$

$$k_{\text{non-travel}} / c_{\text{non-travel}} = c(\text{all}).L(\text{all})$$

Since  $c(\text{all})$  - the marginal propensity to consume all goods - is one, if there is no saving, and may be known, if there is saving,  $L(\text{all})$  can immediately be found from the third of these equations, and used in the second,

which then has only one unknown,  $L$  (non-travel). When  $L$  (non-travel) is known, the first equation too is left with only one unknown. Thus all the  $L$ 's can be found and the substitution responses computed.

The relevance of the family budgeting system  
in constructing a utility tree: an  
empirical test

The problem with the whole procedure is, where to start testing for the existence of neutral groups. Clearly, to test all possible combinations of commodities would be a mammoth task, although not as much effort as the task which the whole theory seeks to avoid, that of computing individual cross-elasticities from time series. Pearce performs a test of his theory, using data from the National Income Blue Book, to find the  $L$ 's and use them to predict changes in demand. He constructs a utility tree from the Blue Book data, taking an initial hypothesis based on intuitive want-groupings (such as entertainment and radio-television) and on the ranking of price-elasticities. He says, for example: "It was thought worthwhile to try grouping items such as 'alcohol and tobacco', 'rent and rates', and 'communication', which intuitively we should expect to have rather lower price elasticities than say 'electrical goods'" (ibid, p.244). Other groupings he made arbitrarily. Pearce finds the result of his hypothesis rather disappointing, partly because there was only "some evidence" in support of the chosen hypothesis regarding the structure of the utility tree, and partly because the published Blue Book data are very crude for this rather refined method of forecasting. In the end he admits that: "... even though our method is



shown to be as good as any other it is only just as good as (a) naive hypothesis" (i.e. a naive forecast).

It is here that the empirical data of Chapter 5 may be useful. The groupings of commodities suggested by data on the division of expenditure responsibilities within the family, provides a very plausible basis for the division of commodities into hypothetical groups, particularly when this knowledge may be supplemented by grouping on the basis of the commodity's function and relative elasticities of demand. Working on the idea that some commodities are generally paid for by the husband, others generally by the wife, and some by one or the other depending on the family, I decided to test for the tree shown below, using Blue Book data as did Pearce.

Diagram 3  
Hypothetical Utility Tree

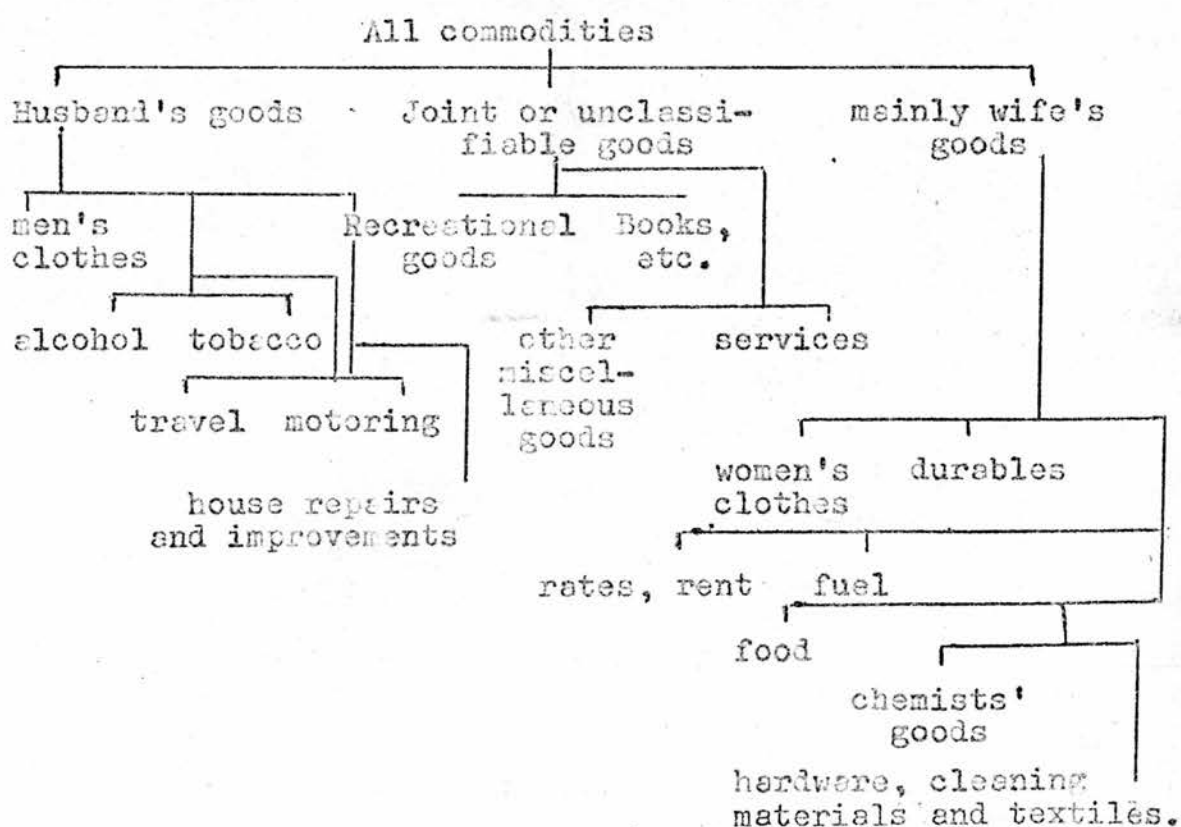
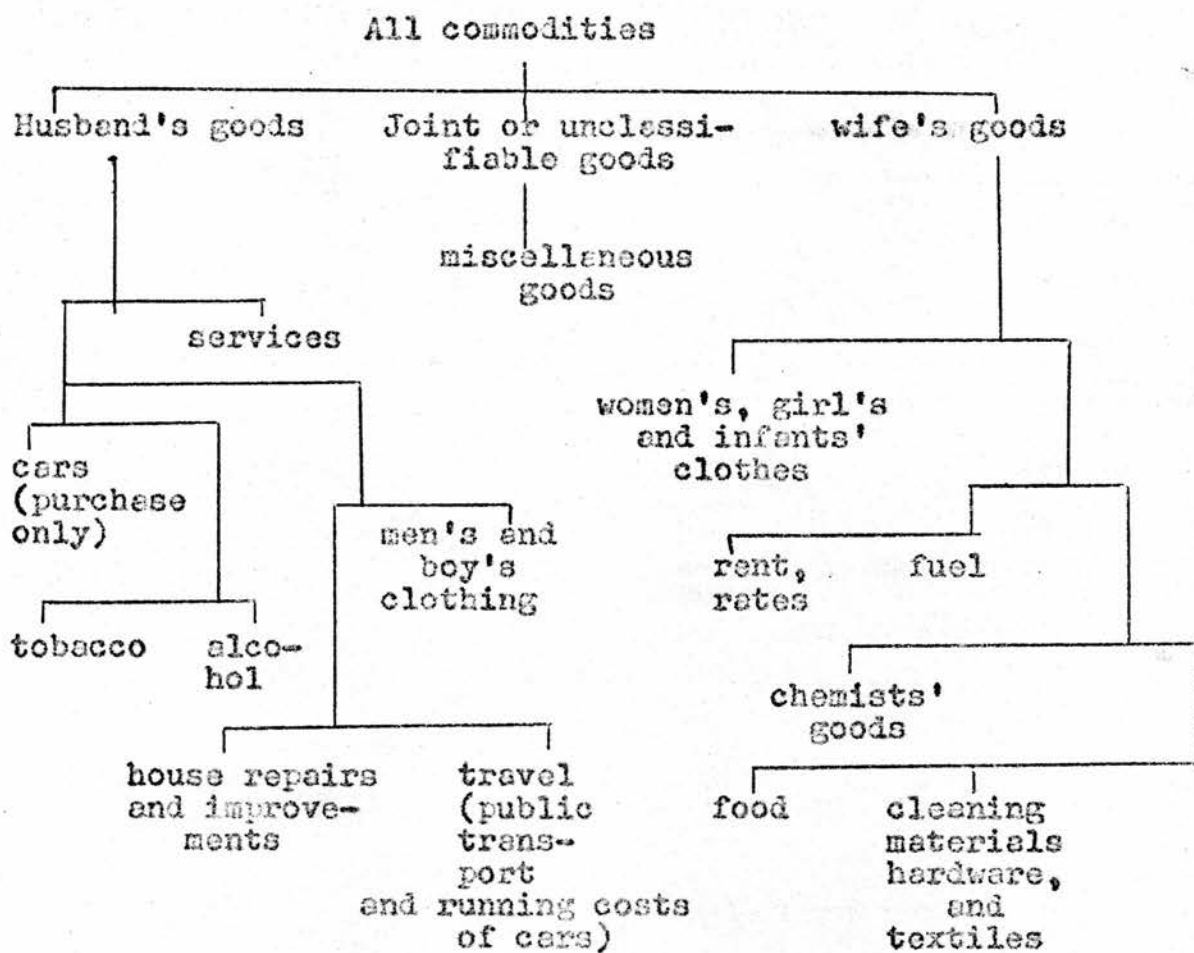
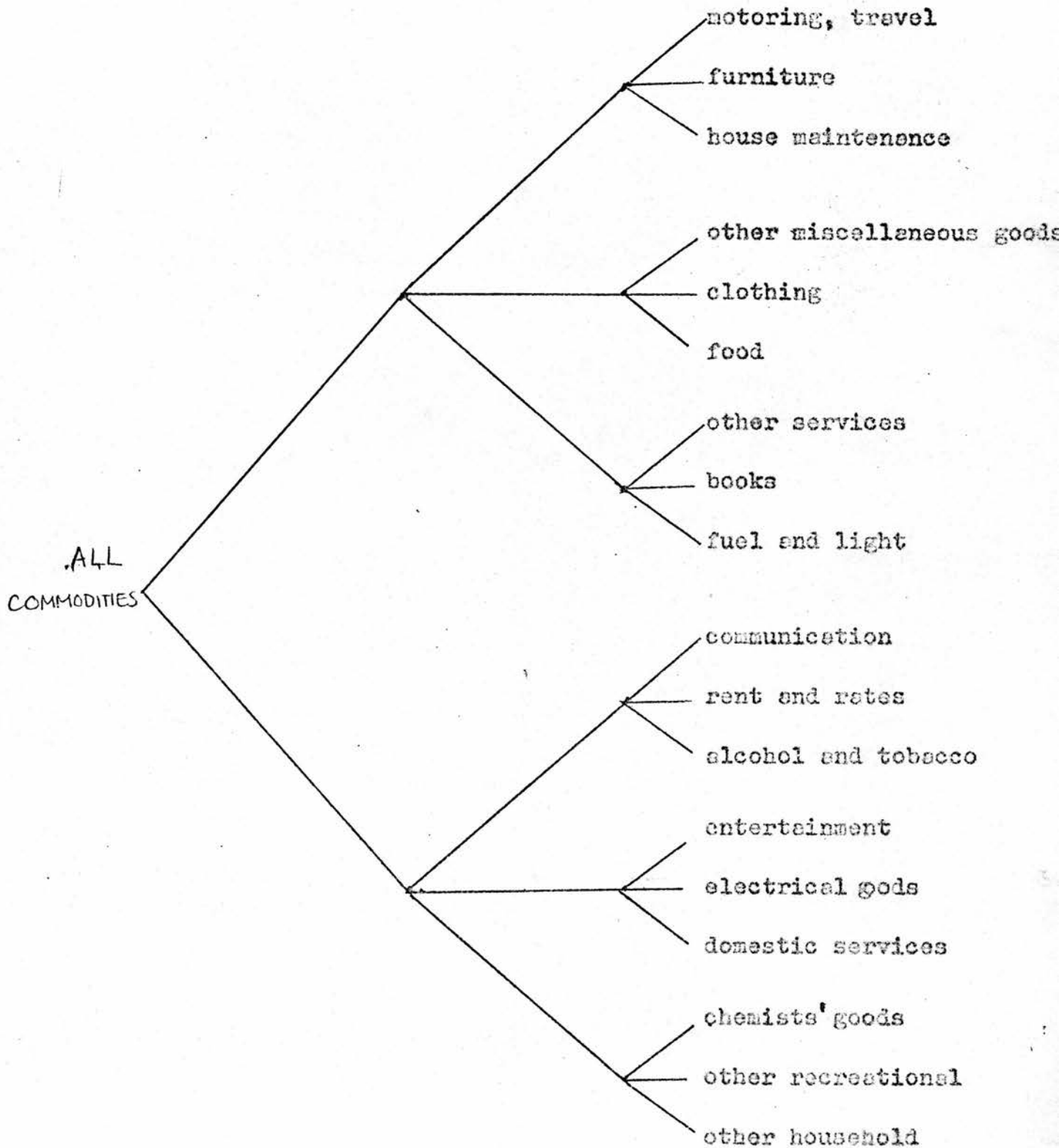


Diagram 4Actual utility tree discovered from  
Blue Book

Note: Durable goods go equally well with any of the 3 main groups

Diagram 5Utility tree found by I. F. Pearce

(See "A Contribution to Demand Analysis,  
p. 245)

I tested this tree for the years 1956-69, using the graph method described earlier. The values of  $k$  found are given in the Appendix to this chapter, which also gives the precise definition of the commodity groups used as the initial "simple goods". Changes in expenditure were measured in millions of pounds, as in the Blue Book. They were taken from Table 23 of the 1970 Blue Book ("Consumers' Expenditure at 1963 Prices"). Percentage price changes were estimated from the cost of living index, given in the Annual Abstract of Statistics, 1970. The tree which can be derived from the data is very similar to the one I postulated, and is shown in Diagram 4. Diagram 5 shows Pearce's tree for comparison. There are some similarities in the initial groupings of goods - both he and I put motoring and travel with house maintenance, tobacco and alcohol together, and chemists' goods with hardware and cleaning materials (these last two sub-groups are presumably included in Pearce's "other household" goods). On the other hand, there are some major differences, for example, whereas I put rent, rates and fuel together in an initial set, Pearce puts them on opposite sides of his tree. The two trees are difficult to compare in so far as Pearce has used finer groupings than I have in defining the initial "commodities". I restricted myself largely to those groupings given separately in the cost of living index, since I had no hypothesis to cover such small groups as Pearce uses. This being so, there was no point in using the current prices expenditure table of the Blue Book to calculate price changes for smaller groupings, and once the larger

groupings of the cost of living index are used in measuring price changes, goods in the same price-change group become automatically neutrally want associated. Thus, for example, since there is one price change measured for all clothing, men's and women's clothing will be part of the same neutral group by definition, since in the equation:

$$\frac{dx_1}{k_1} - \frac{dx_2}{k_2} = \frac{dp_2}{p_2} - \frac{dp_1}{p_1}$$

the two price terms are equal, and the right hand side is zero; thus the equation for each year is of the form:

$$k_1 = bk_2$$

and the three equations have a common pair of solutions where both  $k$ 's are zero. I did not, however, put men's and women's clothing in the same group because it is obvious that these two commodity groups are not necessarily identical as to price behaviour, and the initial hypothesis provides strong reasons why they should be in different sections of the tree. In the case of "miscellaneous recreational goods" and "other recreational goods" however, there is no reason for believing that they are in different parts of the tree, so that the fact that they are automatically neutrally want associated, by reason of the price index having only one appropriate category, "miscellaneous goods", does not really matter.

#### Problems of the method of construction of a utility tree

In performing the test, a number of problems emerged which raise some doubts as to the value of the method:-

- (1) The  $k$  values are very small indeed, so small that chance variations in them, arising from errors made in the collection of the Blue Book data, could lead to considerable errors in the estimation of the "true" marginal propensities to consume. Unless a further test could be introduced to check the accuracy of the estimate of  $k$ , the marginal propensity to consume might be better estimated directly from empirical data. Except in the cases of commodities the prices of which have consistently risen faster or slower than other prices in recent years, so that a consistent substitution effect distorts the estimate of the marginal propensity to consume, this might not lead to excessive errors. In fact, because of this probable wide margin of error in the estimation of  $k$ , I used the marginal propensity to consume determined from time series data of the period 1959-69,<sup>2</sup> to weight the price changes in drawing up average price changes of commodity groups.

<sup>2</sup> A regression of consumption on income (i.e. for practical purposes, total consumers' expenditure) gives an equation of the form:

$$C = a + bY$$

The  $b$ -value can be taken as the marginal propensity to consume. Pearce in fact uses the average propensities to consume as weights in constructing the average price changes of composite commodities, but he does not explain why. It is of course not necessarily true that the ratio of the average propensity to consume to the marginal propensity is the same for every commodity.



- (2) Where the  $k$ -values are very close to zero, the  $L$ 's will also be very small. Since there are so many very small  $k$ 's, it seems that many of the cross-elasticities to be estimated may be so small as to be hardly worth estimating, at least, unless the sophistication of data collection could be improved. It is not worth having a method of forecasting so sophisticated that the difference between the changes it predicts, and the changes a simpler method would predict, are so small that they are smaller than the margin of error arising through difficulties of data collection.

On the other hand, one must not overlook the inadequacy of the Blue Book data for the purpose of estimating the  $k$ 's, which may lead to their underestimation; the Blue Book groupings of consumer expenditures do not correspond exactly to the groups I would have liked to distinguish according to the original hypothesis. For example, "catering, insurance and other services" covers a variety of things including some so diverse as hairdressing, restaurant and canteen meals, stays at hotels, etc. Some of these should be regarded as "wife's goods" and others as "husband's goods". Men's and boy's wear is linked together; women's, girls' and infants' wear together. Footwear is not distinguished as to the sex of the probable purchaser. "Miscellaneous recreational goods", "miscellaneous goods" and "chemists' goods" (which in-

cludes medicines) suffer from the same sort of problem. This means that heterogeneous categories of commodities, some having large  $k$ 's with respect to the other commodities in the equation, and some having small  $k$ 's, are thrown together. Larger  $k$ 's could occur between single commodities which have a sufficiently distinctive function for consumers and sufficiently separate places in the family budget, to be validly separated. This explanation of the smallness of the  $k$ 's in the calculations performed is supported by the fact that  $k$ 's occurring between large groups of commodities are smaller than  $k$ 's between the initial sets. (Pearce, too, finds that the higher-order groupings of commodities are difficult to determine: "Higher-order  $L$ 's ..... were all rather small, suggesting that no very different result would have been obtained by varying the higher-order groupings". I have already pointed out that small  $k$ 's go together with small  $L$ 's).

Because of the problems of computation and the limited value of the method with these data I decided not to proceed with forecasting changes in demand on the basis of the groups found. Because of the large margin of error in estimating the  $k$ 's, it would have been of little meaning to compare the accuracy of a forecast based on my "tree" and the one based on Pearce's "tree". Further investigation of the forecasting value of the method in practice is not really possible without better data, giving price and expendi-

ture changes for a much more detailed breakdown of commodities.

In general, the model of neutral want association seems to show promise, but one needs more data to test its potentialities than published statistics can provide.

## APPENDIX

The data used were for the periods 1966-7, 1967-8 and 1968-9. They were taken from Table 23 of the Blue Book (National Income and Expenditure) 1970. The accuracy with which the k-values can be estimated depends on the scale to which the graph can be drawn, and therefore varies.

<u>Commodity</u>	<u>Definition</u>	<u>k-value</u>
1. Alcohol	total	approx. 1.0
2. Tobacco	"	-0.16 to +0.16
3. Travel and motoring	total "travel" + "running costs of motor vehicles"	0.9 to 1.0
4. House repairs and improvements	maintenance, repairs and improvements by occupiers	0.2
5. 1 + 2	-----	0.3 to 0.7
6. Cars	"motor cars and motor cycles, new and secondhand"	2 to 2.5
7. 3 + 4	-----	1.0 to 1.4
8. Men's and boy's clothing	"men's and boy's wear" plus half of "footwear"	-0.26 to +0.16
9. 1 + 2 + 6	-----	1.0 to 1.2
10. 3 + 4 + 8	-----	0.3 to 0.4
11. Food	total	0
12. Hardware, textiles and cleaning materials	"other household goods"	0
13. Rates, rent	"rent, rates and water charges"	0.4 to 1.0
14. Fuel	"fuel and light"	0.4 to 0.9
15. 11 + 12	-----	0.25 to 0.35
16. 13 + 14	-----	0.20 to 0.65
17. Women's, girls' and infants' clothing	"women's, girls' and infants' wear" plus half of "footwear"	0
18. 11 + 12 + 13 + 14	-----	0 to 0.3
19. Services	"communication services", "entertainment and recreational services", "domestic services", "catering, insurance and other services"	0.3 to 0.8
20. Men's personal goods (1-6 inclusive + 8)	-----	1.0 approx.

CHAPTER 9CONCLUSIONS

An attempt will now be made to draw together the threads of preceding chapters. In the first place, it is worth considering how the concept of a utility tree may be developed. This concept may be extended to form the basis of a model which integrates some aspects of the theory of savings behaviour and the micro-economic theory of labour supply with the theory of demand for individual commodities. Such a model would predict substitution effects without assuming either income or savings constant.

Despite the problems referred to in the last chapter, it seems worthwhile speculating on some further theoretical potentialities of the use of a utility tree. By combining the main elements of Pearce's theory with the main elements of Becker's "theory of the allocation of time" (1965) and Lawrence Klein's work on the relationship between discretionary expenditure and saving (Katona, Klein et al 1954), it would be possible to lay the foundations of an integrated model of household economic behaviour, linking the areas of the consumption function, demand theory and the family's supply of labour.

In accordance with Becker's suggestion, leisure may be treated as a consumption good, measured in time and having a price corresponding to the wage rate. If a man decides to take an extra hour's leisure when he could be working, he foregoes the money he could have earned during that hour; hence one hour's pay is the "price" of

his hour's leisure. A rise in the wage rate would therefore mean a rise in the price of leisure. If leisure is to be viewed as a commodity, the concept of income must also be changed, for leisure is not "bought" with money income actually obtained, as are other goods; rather, leisure is "bought" by foregoing the opportunity to obtain money income. In this context "income" is more suitably defined as the amount of money which a man could earn if he worked as many hours as his employer would offer him work for.<sup>1</sup>

Using this idea of maximum potential income, commodities can be thought of as being paid for in units of labour-time rather than money. Then, a rise in the money wage-rate can be seen not only as a rise in the price of leisure, but also as a fall in the work-price of all other commodities. The effect on the consumption pattern of changing money income, can therefore be defined as an effect of the changing work-price of commodities. Any commodity price change may have the effect of changing the amount of leisure consumers demand, and hence the amount they work. Or consumers may react to a price change by altering the amount of saving they carry out. If leisure and saving are part of the commodity chain in this way, they need to be incorporated into the utility tree.

<sup>1</sup> I put forward this as a culturally realistic notion of the maximum possible number of working hours; but perhaps some modifications would need to be made in respect of moonlighting. It is in fact difficult to specify a hypothetical maximum, since hours actually worked, workers' notions of how much it is possible to work, and employers' ideas of how much overtime work should be offered to employees, are of course mutually reinforcing concepts.



Where is leisure likely to fit into a utility tree? Obviously it is both a wife's good and a husband's good, in so far as each must have some leisure. But here one must be concerned with variable leisure, that part of leisure which may be given up in favour of extra income from work. In so far as people adjust their incomes to meet temporary needs, leisure and saving may well be substitutes for each other. Consequently it seems likely that they should go together in the utility tree with commodities for which money is saved or special effort is made, such as durables or holidays. In the utility tree I have established from the Blue Book data, durables fit equally well with either "men's" or "women's" or "joint" goods - the k-values in all three cases were zero. Yet variable leisure is to a large extent a "man's good" - it is the husband, rather than the wife, who varies his working hours according to temporary needs. As shown in Chapter 6, the age of children and attitudes to their upbringing or to the role of women, have an overwhelming effect on the wife's propensity to work; there is no evidence that women go out to work to obtain money for specific purchases, although most of them can say to what uses their earnings are allocated. Even the small group of mothers of pre-school children who worked apparently from financial necessity, had a general rather than a particular financial need. The wife's decision to work or not to work is a long-term one, for the most part; only two women in the sample said that they had worked spasmodically "when they needed to". Moreover, women usually do not have the sort of jobs in which they can ex-

tend their hours of work on a week-to-week basis if they need more money than usual. Opportunities for variable overtime are peculiar to men. Hence it seems clear that it will be the man who obtains extra money for specific temporary needs, such as saving up for the annual holiday. In fact, a substantial minority of men mentioned specific things of this sort which gave them a reason for doing more overtime than usual at the time of the survey; most such references were to holidays, though this may have been because of the time of year at which the survey was carried out. It is not at all clear, then, where savings and leisure should come in the utility tree; in so far as both are substitutes for expenditure on holidays, it is logical that they should come on the husband's side, and this is consistent with what we know about men's and women's work patterns. But in so far as savings and leisure are substitutes for durable goods, they should come on the woman's side of the tree, which is not entirely consistent with the data on work patterns.

- 2 Clearly an empirical trial is required to solve this question. But it is here that the available statistics present the most problems in the way of empirical testing. Variable work opportunities are a feature of the manual worker's work-consumption pattern, and not for all manual workers at that; white-collar workers generally do not have such opportunities, and most retired people in practice do not (if only for cultural and medical reasons). But aggregate data on consumer expenditure is only available for all consumers. Apart from the Blue Book, the only alternative source of data which gives expenditure for working-class families separately is the Family Expenditure Survey. But this does not give an adequate estimate of saving - in fact, total expenditure exceeds income for the appropriate table, which makes it impractical to use these figures to fit savings and leisure into the utility tree.

The implications of defining price as work-price must be considered a bit further here. If the money price of a commodity changes, whilst the wage rate remains constant, the change in the work-price measured in hours, is equal to the change in the money price, divided by the wage rate per hour. But if the money price of a commodity changes at the same time as the wage rate changes, the change in the work-price of the commodity is equal to the new price divided by the new wage rate, minus the old price divided by the old wage rate. Alternatively, the work-price can be measured in money rather than hours; this is convenient as long as the wage rate is constant, for as long as this is so, prices can be measured in money in the ordinary way. But to measure the work-price in money as the wage rate changes is conceptually more complex. A doubling of the wage rate has the effect of doubling the purchasing power of the consumer-worker's labour, which is identical to the effect of halving prices. The price of leisure on the other hand is doubled <sup>in terms</sup> <sup>other</sup> of all commodities.

A given change in the wage rate can therefore be represented as a change in prices equal to the reciprocal of the wage rate change - if the wage rate doubles, prices are halved, and if the wage rate is halved, prices double.

The only uses of income so far omitted from the model are residual and precautionary saving. The first of these arises as an accident, not because of any decision on the consumer's part; and therefore any notion of an "elasticity of demand" for such a use of income

would be nonsensical. It is generally accepted that it can best be explained in terms of deviations of actual income from expected income (c.f. Friedman's permanent income hypothesis) or in terms of the lagged adjustment of consumer expenditure to changes in income (c.f. Ruth Mack's model<sup>3</sup>). As for precautionary saving, this arises from uncertainty felt by consumers as to their future income or future expenditure. It seems very likely that under financial pressure, consumers will abandon precautionary saving and rely on the use of discretionary labour power in emergencies.<sup>4</sup> For example, Friedman finds that entrepreneurs are likely to save a large proportion of their incomes (compared to other occupational groups) because of uncertainty concerning the future level of their incomes; but although a casual labourer suffers the same, if not greater, uncertainty, one cannot imagine him maintaining any substantial level of liquid assets. Therefore, there may be an interdependence between precautionary saving and leisure at low income levels, which needs to be investigated in order to complete the set of economic relationships which the integrated model should include.

A problematic consequence of including leisure in the utility tree is that work on substitution responses must use work-prices of commodities rather than money prices. But these work-prices will vary far more between

<sup>3</sup> Ruth Mack: Direction of change of income and the consumption function: Review of Economic Studies, November 1948

<sup>4</sup> Mincer (1962) finds that "negative transitory income components", that is, situations where income is less than the consumer's normal level, provide wives with an incentive to go out to work.

consumers than do money prices, because the work-price which a consumer pays for a good depends on his wage. Thus, in the work-price model, it may be necessary to draw up different sets of cross-elasticities for different income groups. Does this lead to a model of impractical complexity?

The point of setting up highly complex, all-inclusive models may not be so much to use them as to see how adequate less complex models are. As I pointed out in the first chapter, it is not until one has constructed a model of great complexity that one can tell whether this is a better model to use than the simpler models from which it was developed. One can then see where it is worthwhile to add elements of the complex model to the simpler ones. To illustrate this point, one may consider that the importance of substitution effects varies greatly from one commodity to another. In particular, the price changes of some commodities must have a much greater effect on the demand for leisure or the quantity of saving, than the price changes of other commodities. Thus, there are some types of demand prediction for which it may be important to use work-prices and a utility tree including leisure and/or saving; other predictions where a conventional-commodity utility tree and money prices will suffice, and yet others where substitution effects are altogether unimportant.

I have now attempted to show the way towards one type of improvement of models of household behaviour which was advocated in Chapter 1; the improvement of the



predictive power and generality of models by the integration of different fields of theory.

What of the second type of improvement which was advocated in Chapter 1, the inclusion in models of cultural as well as economic variables? The construction of the utility tree of Chapter 8 was based on a hypothesis concerning the division of expenditures between husband and wife, which was derived from the empirical work of Chapter 5. In so far as Chapter 5 also provides some information about the social correlates of different housekeeping system, it is possible to make some statement about the range of data sets for which this particular utility tree will be valid.

If the utility tree changes, many of the cross-elasticities of substitution would change. Thus the model would only be operational as a predictive tool for as long as, and in places where, the housekeeping systems which the utility tree is based on remain reasonably similar to those found at present. The utility tree is, therefore, a distinctly culture-bound model.

If the demographic indicators of the housekeeping system which have been identified in this study - owner-occupancy, skill level of the husband's occupation, traditional versus non-traditional occupations and so on - could be verified in a larger and more broadly based sample, it may be possible to suggest, within Britain, for what groups of the population the utility tree established in this study is likely to be valid, and what sorts of social changes might cause it to become invalid. But it must be emphasised that in other countries, family bud-



getting practices could be quite different, and even some British practices may not be identified by the Edinburgh survey because of its restricted geographical scope.

In Chapters 2 and 6, I have attempted to identify some cultural influences on the individual's propensity to work. In particular, it has been shown that the nature of the housekeeping system affects the husband's propensity to work, and that it is highly plausible that P-type husbands are more likely than A-type husbands to react to wage rate changes by working shorter hours. However, no data are available to test this hypothesis here. It must, moreover, be recognised that the housekeeping system is only one of a number of influences on the individual's propensity to work, which are identified in Chapter 6 and have also been identified by the Prices and Incomes Board. Any of these influences may also affect the elasticity of the individual's supply of labour.

Although the findings in the Edinburgh survey are similar to those of the WPBI in many respects, it would be necessary to make further investigations on larger samples, drawn from a variety of regional and occupational cultures, before one could be really sure to what sorts of people these findings apply. The same could be said of the typology of housekeeping systems, which is the basis not only of some of the findings about the propensity to work, but also of the utility tree.

The data presented in this thesis do not, unfortunately, suggest any simple demographic indicators of

leisure preference. Demographic indicators and indicators in industrial conditions could however be found for individual factors affecting leisure preference. For example, interest in sport could be measured in a sub-population of workers by, say, the extent of membership of sports clubs in their occupational group and district. Involvement in workplace friendships could be found, on further investigation, to be associated with particular occupations or working conditions, and thus easily identifiable. Multiple regression analysis, using as "cases" either individuals, production establishments, or cities, seems to be called for to determine the exact degree of dependence of leisure preference on various social factors, and what is the best way to measure these factors.

The difference between an integrated and a conventional model of economic behaviour is not simply that the former is broader in scope, that it leaves less under the heading of "ceteris paribus". A further major difference is that the integrated type of model attempts to specify a more comprehensive system of linkages between different behaviours and the variables which influence these behaviours. In other words, economic actions and their cultural correlates are seen as a whole, as a pattern. The predominant theme in the empirical findings of Chapters 5 and 6 is that the A-type housekeeping system is associated with a greater propensity to work and more extensive consumer ambitions than the P-type system. But if one attempted to show

this simply by establishing an association on the one hand between (say) the number of durable goods a family wants, and its housekeeping system and on the other hand between the housekeeping system and the amount of overtime the husband works, the reader would be entitled to say, surely these associations could very well be spurious; what do they mean? It is only when the nature and implications of the budgeting system are considered in detail, bringing out the importance of joint saving in the A-type system, the husband's responsibility for income-elastic discretionary expenditure and so on, that the interpretation I have given to these data becomes plausible, and that the nature of the implicit life style and its consequences for economic behaviour becomes apparent.

This pattern-finding approach attempts to find the real meaning of statistical relationships instead of taking them at face value. As I argued in Chapter 1, it is important to do this in order to avoid identifying spurious relationships as real ones. It is also necessary in order to be able to speculate constructively about one's data. If one has attempted to understand the logical meaning of the relationships one has found, it is easier to suggest what might happen if a particular aspect of the data pattern changes. For example, by attempting to understand the relationship between the P-type housekeeping system and a traditional working-class life style, it is possible to speculate that the greater frequency of the A-type system amongst younger couples is more likely to signify that this system is becoming more

common amongst successive generations of newly married couples, rather than that it signifies a change from the A-type to the P-type system during the life cycle.

It is this sort of speculation which makes it possible to generate from an exploratory study hypotheses which, if proved in further research on a larger scale, could have predictive value.

Many economic models, indeed most of the simplest and most basic building blocks of the discipline, leave cultural factors out of account altogether. For example, demand for a commodity is related to its price, and to the household's income, but not to trends which might influence "tastes" such as changes in consumers' housing situation, working hours or conditions, or the availability of public transport, recreational facilities and so on. Such simplicity is obviously justified to some extent by the fact that most economic predictions need only be short-run. But increasingly, our attention is drawn to the need for long-term predictions in a number of fields. Recent attention to manpower planning, to the use of natural resources (which assumes increasing ecological significance) the increasingly long-term investment plans made by both government and private industry, all point to the necessity for economics to adjust its methods in order to make longer-range predictions.<sup>5</sup> It is in such long-range predictions that cultural factors must be taken into account, for in the long period they cannot be assumed constant.

<sup>5</sup> Some of these issues are discussed in "Forecasting and the Social Sciences" ed. Michael Young (1968).

However, in attempting to outline a model which incorporates cultural patterns as independent variables, I have clearly laid myself open to a new set of difficulties. A number of important questions remain unanswered, which must be answered before one can use an integrated model for long-term predictions. For how long will the housekeeping systems found in this sample remain, for presumably new systems evolve as time goes on? If more and more couples are adopting the A-type system, when they marry, what is making them do so? Is the most salient factor higher living standards, increased frequency of owner-occupancy, a trend towards a more "joint" conjugal role-relationship or what? Which is the best easily observable indicator of the housekeeping system? What proportion of couples change their budgeting system in the course of their married life, and why? Clearly further work on housekeeping systems is required to answer these questions, which would need to have a longitudinal perspective. Moreover (and this problem would apply whichever sort of model was under discussion) the degree of influence which the various correlates of the propensity to work have on it has yet to be quantified. Such quantification is not possible in a small exploratory study. This requires multiple regression analysis of a much larger sample.

The explanation of variations in the propensity to work is of interest to employers and government even in the short run. It is relevant to predicting people's reactions to wage and price changes, changes in basic working hours and changes in overtime opportunities. In



Chapter 6 I have added at least one, and possibly two, important influences on men's propensity to work, to the list established by the Prices and Incomes Board. The first of these is the housekeeping system, and second the type of acquaintance network a man and his wife have. Data on the latter is, however, weak in my survey, so that I cannot be conclusive on this point.

The data permit some interesting speculations on future trends in the propensity to work. Firstly, the finding that having at least a part-time job appears to be almost universal amongst women who have their first child after 1955 and have no longer any pre-school children, suggests that the labour force participation at least of working class wives may be approaching its maximum in this country (although confirmation of this finding too is required from a larger sample and one more widespread geographically). One may then ask, if having a job becomes so general in this group, will women without pre-school children consider any longer that they have a choice about whether to go to work or not? When housewives not committed to the care of young children nearly all contribute to the family income, will this practice become mandatory? This would represent an important and interesting change in current social values and family roles.

Secondly, it may well be that the P-type husband's relatively low propensity to work, and the fact that he spends his retentions on goods for most of which the income elasticity of demand is low, may mean that he is more likely than the A-type husband to work shorter hours



when his wage rate rises. Is it possible, then, that if the A-type system is becoming more common, as I have suggested elsewhere that it may be, that the relative frequency of negative income effects will fall, and that of positive reactions to wage rate changes rise, as time goes on? If this occurs, it is possible that the working hours of manual workers could rise, instead of fluctuating around the same long-run level, as they have done in Britain since 1945. If so, this could lead to increasing unemployment, if it is profitable to employers to take advantage of an increased willingness to work overtime instead of maintaining the size of their labour force.

However, these can only be speculations. Many questions remain unanswered in this work, and many of its findings are inconclusive. I can only hope that, as an exploratory study, this thesis has opened up a useful area for future research, and that it has served to illustrate the potential value of predictive models which attempt to span disciplinary boundaries.

Neither the integrated model of substitution effects in household behaviour, nor the analysis of cultural influences on the elasticity of the individual's supply of labour, have emerged in this thesis as completed models which would be operational for predictive purposes. As was my intention, I have devoted my limited resources to constructing a mere outline to the solution of a very wide research problem, rather than to providing a completed solution to a small part of this problem. I have used this approach precisely because, as I stated in the

first chapter, it is important to define the boundaries of one's field of investigation with references to social reality, rather than from academic convenience. I have been concerned to demonstrate the value for economics of examining a number of areas of household behaviour from a sociological standpoint; and if I have succeeded in doing this, I hope I may be justified in leaving the task of model-building and model-testing uncompleted.

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THIS SECTION TO BE FILLED IN AT THE END OF THE INTERVIEW:

INTERVIEWER ..... DATE ..... DAY OF WEEK .....

TIME ..... SERIAL NUMBER .....  
(please also put this on front page)

IF REFUSAL, what was the reason given? .....

WHO REFUSED? H W BOTH RELATIVE .....

WHO ELSE WAS PRESENT besides the couple interviewed? .....

WERE BOTH HUSBAND AND WIFE PRESENT AT ALL THE TIME? Y N

DWELLING TYPE: corporation flat corporation house tenement flat  
maindoor flat terraced or semi-detached house, shared  
terraced or semi-detached, not shared  
other, being .....

START HERE:-

- 1. Can I first ask you how many children you have? If none at home, do not interview without consulting office
- 2. How old are they? Boys or girls? (If any at home are over 18, do not interview without consulting office)
- 3. What is your job, (your husband's job)?
- 4. Do you have a job at the moment (to wife) What is it?

CHECK LIST OF SECTIONS

- 1. HOUSEHOLD COMPOSITION, JOBS
- 2. EXPENDITURE
- 3. HUSBAND'S JOB
- 4. WIFE'S JOB
- 5. HOUSING
- 6. EDUCATION AND CAREERS
- 7. LEISURE AND FRIENDS
- 8. OPINIONS OF ECONOMIC SITUATION

RETAINED INFORMATION For use later in interview

CHILDREN

No.;  
Age;  
Sex;  
F, M

1	2	3	4	5	6	7	8	9

Husband's job;

Wife's job;

SECTION 2; EXPENDITURE

W Could I start by asking you about your side of the family budget?

W 5. How much would you say your regular housekeeping money is each week?

£.....s.....

NR R

W 6. Does it all come from your husband?

Y N NR R

If no, explain breakdown:-

VERBATIM: \_\_\_\_\_

W 7. Is it flexible at all?

Y N NR R

FURTHER EXPLANATION: (Probe)

W 8. Do you ever borrow from your husband if you run out at the end of the week?

Y N NR R

NEVER RUN OUT

W 9. Do you ever borrow from anyone else if you run short - I know a lot of this used to go on before the war, I wonder if people still do it?

BORROWS  
FREQUENTLY

BORROWS  
RARELY

FURTHER COMMENTS:-

NEVER

NR R

W 10. (If borrows) Who do you borrow from - your mother, neighbours or who?

MOTHER  
SISTER  
NEIGHBOUR  
OTHER

FURTHER COMMENTS:-

W 11. If working children in the household:  
How much does your son/daughter give you each week?

SON:  
£.....s.....

(If covered in q. 6, write "see q. 6")

DAUGHTER:  
£.....s.....

FURTHER CHILDREN:

£.... s.... and £.... s....

W 12. If working children Does he/she get anything back out of that for pocket money or fares?

EXPLAIN FOR FURTHER  
WORKING CHILDREN:-

SON GETS BACK .....s .... FOR

DAUGHTER ..... FOR .....

W 13. Do you have anything on HP?

ITEMS .....

NR R

W 14. Do you belong to a clothing club or anything like that?

Y N NR

(if covered in q.13 write "see q.13")

DESCRIBE TYPE OF CLUB:

W 15. How much does HP (and clubs) cost you per week?

£.....s.....

NR R

W 16. Could you look at the list on this page and put a tick against the things which are covered by your housekeeping money?

Then could you put a cross beside the things your husband pays for with money you don't handle?

(If something is shared between you, put both a tick and a cross)

Cross out anything you spend no money on between you

cigarettes for yourself	presents
cigarettes for your husband	toys
children's pocket money	rent
clothing for yourself	rates
clothing for your husband	coal
clothing for the children	gas
chemists' goods (except prescriptions)	electricity
medicines, dentists' fees	phone bill
gardening expenses	TV rental
visits to pubs	HP
Christmas expenses	insurance
betting, pools, bingo	running of car
drink to keep in the house	school expenses
repairs, decorating, do-it-yourself materials	mortgage payments
saving up for anything	furniture bought cash
cinema tickets, entertainment	bus fares for your husband
	bus fares for you and the children
	hairdressing, cosmetics

B 17. Do you manage to save anything?

Y N NR R

B 18. What sort of things do you save for?

VERBATIM:

B 19. Who has the job of saving? (Probe)

VERBATIM:



- B 20. Do you have any savings left from one year to another? Y N NR R
- B 21. (If yes) Could you put a figure to it? £.....s .....  
 - say for how much you have saved in the CAN'T SAY  
 last twelve months? VERY SMALL
- FURTHER COMMENTS ON SAVING:  
 NR R

- E 22. What kinds of insurance do you have? H'S LIFE W'S LIFE  
 ENDOWMENT FOR  
 CHILDREN  
 HOUSEHOLD OR FIRE  
 OTHER, WHICH IS .....  
 .....

- E 23. Now could you look at the list of things on the bottom of this page  
 and tell me which you have - could you mark them with a tick?

DINING SUITE	HAND OR TREADLE SEWING MACHINE
FITTED CARPETS	CAMPING EQUIPMENT
THREE PIECE SUITE	TAPE RECORDER
TV	GRAMAPHONE
WASHING MACHINE	FOOD MIXER
SPIN DRIER	GOLF CLUBS OR SKIS
HAIR DRIER	CAMERA
FRIDGE	VENETIAN BLINDS
TELEPHONE	
CAR	
MOTOR BIKE	
VACUUM CLEANER	
GAS OR ELECTRIC FIRES	
ELECTRIC SEWING MACHINE	

Now please mark with a cross anything you need badly but haven't got.

And put a star by anything you'd like to have but which isn't really a priority.

B 24. Is there anything which isn't on the list which you think you need:

NEED .....

FURTHER COMMENTS:

NOTHING NR

SECTION 3: HUSBAND'S JOB

H 25. How long have you had your present job? SINCE 19.....  
( = same type of work with present firm) NR

H 26. Have you been a ..... there for all that time?  
Y N NR

H 27. What were you before that? JOB .....  
.....

H 28. How long was that for? ..... YRS.  
NR

H 29. What did you do before you worked for your present firm? JOB .....  
.....

H 30. How long was that for? ..... YRS.  
NR

H 31. And before that? JOB .....  
How long for? ..... YRS.

Repeat q, if necessary till get back to time he left school and write answer here:-

H 32. (If not mentioned already) Did you complete an apprenticeship? Y N NR

(NB If informant has mentioned an apprenticeship not connected with his present trade, make sure you ascertain whether he completed it - he may have given it up on starting national service)

H 33. How many hours did you work last week? ..... HRS.  
(NB actual time, not what he was paid for - overtime may count as "time and a half" for wage purposes)

H 34. Was that a fairly usual week? Y N NR

H 35. Does it vary at all with the time of year? Y N NR  
If yes, probe and write explanation here:

H 36. How many hours of what you worked last week was overtime? ..... HRS.

H 36a. What is the rate per hour for overtime? SAT. RATE ..... SUN. RATE .....  
OTHER DAYS .....

H 37 Was that Saturdays, Sundays or evenings - how much of each?  
SAT.HRS.....  
SUN.... EVENINGS...

H 38. How is overtime allocated?

VERBATIM:

H 39. How much overtime can a man get if he wants as much as possible?

VERBATIM:

H 40. Do you do any shift work? Y N NR

H 41. Is shift work compulsory in your job? Y N NR

(i.e. do you effectively have the chance to opt  
out of a shift system if you don't like it)

H 42. How does the shift system work - could you explain what your  
hours are on the different shifts? How often do you do each one?

NAME OF SHIFT	HOURS	HOW OFTEN	TICK IF PREFERS
---------------	-------	-----------	-----------------

H 43. Which shift do you prefer? (tick above)

H 44. Why? VERBATIM:

H 45. Are you paid by the hour or by the amount of work you do? - Is there any  
kind of production bonus?

HOURLY RATE WITH INDIVIDUAL BONUS
--------------------------------------

(piece includes mileage basis  
for transport workers)

HOURLY RATE WITH GROUP BONUS
---------------------------------

NR

H 46. Do you do anything apart from your main job? Y N NR R

H 47. (If yes) How many hours have you spent at that in the last month?  
..... HRS.

DESCRIBE JOB:

CAN'T SAY
NOTHING RECENTLY
NR R

H 48. How much does that bring in? £.....s.....  
NR R

H 49. Does the amount of tax you are going to pay discourage you  
from trying to earn as much as possible? Y N NR

H 50. (If yes) Do you actually work shorter hours than you would if  
the tax rates were lower Y N NR

H 51. Do you try to work out how much tax you will have to pay? Y N NR

FURTHER COMMENTS ABOUT TAX:

- H 52. Does the amount you earn vary from week to week? Y N NR
- H 53. (If yes) Could you write in here a rough maximum and minimum of your wages, after tax and national insurance is taken off? (If no) Could you write here what you earn after tax and national insurance is taken off?  
 MINIMUM: £.....s..... £.....s.....  
 MAXIMUM £.....s..... NR R  
 NR R
- H 54. How much of that is your basic wage? £.....s.....  
 Provide slip of paper and envelope if required R
- H 55. Are there any deductions from that figure - for a holiday fund or pension scheme or anything like that? Y N NR R
- H 56. (If yes) How much do you get taken off for that?
- H 57. If your pay went up by £2 per week, how would you spend it? (If says save) what for?

VERBATIM:

SECTION 4: WIFE'S JOB If she has none, ask 58-63 only

Could I ask you a few questions about wives working now?

- W 58. What was your job before you were married? .....  
 Note industry, type of work and type of establishment .....

- W 59. In what year were you married, by the way? 19.....

If has no job now (if has a job go to 61)

- W 60. When did you give up that job? 19.....

- W 61. Have you had any job since your marriage? Y N NR  
 JOB FT/PT DATES
- W 62. (If yes) a. What was that  
 b. when?  
 c. For how long?  
 d. Was it full time or part time?

- W 63. Would you prefer to work rather than stay at home? (Probe)

VERBATIM:

If has a job now

- W 64. How long have you had your present job? SINCE 19.....  
 (i.e. period of work with same employer)
- W 65. Have you had any other job since your marriage? Y N NR  
If yes ask q.62.

W 66. (if has different job from what had before marriage)

Why did you change your job?

VERBATIM

W 67. What are your hours of work? FROM ..... TO ..... NR  
IF VARIABLE EXPLAIN:

W 68. Which days of the week do you work? MON/ TUES/ WED/ THUR/  
FRI/ SAT/ SUN

W 69. What sort of things do you mainly spend your money on?  
VERBATIM:

W 70. What would you cut down on if you had to give up working?  
VERBATIM:

W 71. So do you think you would manage if you ever had  
to give up work or not? Y N DK NR

W 72. Would you go on working if your husband earned  
£30 per week? Y N DK R

FURTHER COMMENTS:

W 73. Some women go out to work because they are saving up for something special,  
others to get out of the house, some for the company and some just to make  
ends meet.  
What is your main reason?

SAVING FOR ..... MAKE ENDS MEET COMPANY  
(name of item) GET OUT OF HOUSE DK NR

DIFFERENT REASON:

W 74a. How much do you earn per week? £5. NR  
R

#### SECTION 5: HOUSING

Now could I ask you a few questions about your house and how you find it?

E 74. How long have you lived in this house? ..... YRS.

E 75. Have you lived anywhere else since you were married? Y N NR

E 76. Where? 77. In what type of house? If no go to 78

Before this house

When first married

DISTRICT	HOUSE TYPE

- E. 77. Where were you brought up? H .....  
(Note city or county within British Isles, country if abroad) W .....

Ask all not on Corporation estates:

- E 79. Firstly, is your house rented or do you own it?

OWN ..... skip to 83-6, then 89

RENT

RENT FREE ..... skip to 84,85,86 then 89

RELATIVES OWN

OR RENT

- E If rented, check; that's from a private landlord, is it

Y N NR

Private tenants:

if no, go to

- E 80. How much is the rent? £.....s..... per .....

- E 81. How much do you pay for rates? £.....s..... per yr.

(make sure you get what is paid not rateable value)

- E 82. Are you on the Corporation waiting list for a house?

Y N NR R

Owner-occupiers

- E 83. Is the house mortgaged? Is it an ordinary mortgage Y, ORDINARY

or the kind that is a life insurance policy too? Y, INS. MORTGAGE

- E 83a. How much are your mortgage payments? N NR R

- E 84. How much do you pay for rates? £.....s..... per yr. £ 5

- E 85. How much do you pay for feu-duty? £.....s..... per yr.

- E 86. Are you on the Corporation waiting list for a house? Y N NR R

Ask Corporation tenants only:

- E 87. How much is the rent? £.....s..... per .....

- E 88. Has the recent increase in Corporation rents affected you yet?

Y N NR

(If yes) How much has it gone up ?

.....



Ask all types of householder:

E 89. (If the main room is not also a kitchen)

Is your kitchen large enough to eat in? Y N NR

E 90. So how many apartments have you apart from the kitchen 1 2 3  
4 5 NR

E 91. Have you a bath? Y N NR

E 92. Do you find the house large enough? H; Y N NR DK  
QUALIFIED ANSWER VERBATIM: W: Y N NR DK  
H: W:

E 93. Is it modern enough? H; Y N NR DK  
QUALIFIED ANSWER VERBATIM: W: Y N NR DK  
H: W:

E 94. In general, have you any complaints about the house or not?  
VERBATIM  
H: W:

B 95. Would you prefer to live in any other district?  
If yes Which? H; Y N NR DK  
H; W; Y N NR DK  
W;

Ask all tenants, not owners

B 96. Do you want to buy your own house some time or not?  
OTHER COMMENTS: H; Y N DK NR  
H: W; Y N DK NR  
W:

B 97. (if yes) Are you actually saving up for a house at the moment?  
Y N NR

SECTION 6: EDUCATION AND CAREERS

I'd like to go on to a few more general topics if you have time - by way of background information - could I ask you a bit about your own and your children's education?

Ask re all children 12 plus but not yet working

E 98. Which school is he/she at? SCHOOL .....  
SCHOOL .....  
SCHOOL .....

B 99. What do you want him/her to do when he/she leaves school?

VERBATIM: (Probe)

H; W;

B 100. Ask re all children under 12

What sort of secondary school do you want him/her to go to?

VERBATIM:

H; W;

B 101. How old were you when you left school?

H; 14 15 16 17 18 NR W; 14 15 16 17 18 NR

B 102. If you could go back to leaving school again at the present time, would you have chosen a different sort of job or education from what you have had?

(Probe; this q. is intended to get at what they would do if they had not been under the constraints which probably existed when they were 14 or 15)

VERBATIM:

H; W;

B 103. What sort of jobs did your parents have when you left school?

H's FATHER ..... W's FATHER .....

H's MOTHER ..... W's MOTHER .....

Further comments on parents' jobs:

104. I don't know if it sounds at all relevant to talk about your friends, but it's often suggested that there is some kind of common idea spread around a group of friends about what is and isn't worthwhile in the way of things to buy and the amount of work you do. Do you think this is true?

(Probe)

H; Y N NR DK W; Y N NR DK

FURTHER COMMENTS:

H; W;

105. It's often said that people get to know others who live in the same way and on the same level. Is this so with you?

VERBATIM:

H;

W;

106. I suppose most people's friends would fall into five categories; relations, then other people they grew up with; people they work with or have worked with in the past, and then neighbours. Which of the five groups would you say your most closest friends come into? (Probe)

H;

W;

B 107. Amongst the people you know, who has similar attitudes about what to spend money on?

H;

W;

B 108. Do you and your friends discuss that kind of thing with each other? (Probe)

VERBATIM:

H;

W;

B 109. What sort of things do you do in your spare time?

H;

W;

B 110. Do you get out much? What sort of things do you do when you go out - visiting, pubs, the pictures or what?

H;

W;

B 111. Do you mainly go out together, or do you have separate interests?

Probe - Is there anything you do on your own?

H;

W;

B 112. Does anyone else go along with you when you're out - like your parents or people you know from work? (Probe)

H;

W;

B 113. (If friends other than parents or workmates mentioned) What sort of jobs do they have?

B 114. What sort of jobs do your friends have in general?

H;

W;

SECTION 8: OPINION OF ECONOMIC SITUATION

H 115. Do you have any fears about redundancy in your job? Y N DK NR

COMMENTS:

H 116. (If yes) How far would you be prepared to move to get another job?

VERBATIM:

B 117. Do you think that people in Edinburgh will be poorer or better off two or three years from now?

H; POORER

W; POORER

BETTER OFF

BETTER OFF

SAME

DK NR

SAME

DK NR

B 118. Are they better off than they were two or three years ago? - or not?

H; BETTER OFF

W; BETTER OFF

WORSE OFF

WORSE OFF

SAME

DK NR

SAME

DK NR

FURTHER COMMENTS:

H 119. Do you expect your own income to rise or fall during the next year?

RISE FALL DK SAME NR R

H 120. (If yes) By how much?

..... shillings

DK NR R

H 121. How long has your family income been at the same level as it is now?

..... MONTHS

DK NR R

B 122. Have you had to economise on anything because of the increase in the cost of living in the last year?

H; Y N DK NR

W; Y N DK NR

B 123. (If yes) What have you had to cut down on?

H;

W;

INTERVIEWER'S COMMENTS ON INTERVIEW AS A WHOLE:

## INTERVIEWERS' INSTRUCTIONS

### How to introduce yourself:-

The Sociology Department of Edinburgh University is doing a survey to find out how people manage these days on the money that comes into the house. We think running a house and looking after a family these days must take a lot more attention and skill than it used to, and we want to find out how people do it. The results will eventually be published, but nobody's name will be mentioned and you can be sure that the information you give will be treated confidentially.

### Supplementary explanation of research purpose:-

Inflation, a greater variety of goods in the standard budget than ten or fifteen years ago, and the frequency of re-housing, means that budgeting is a lot more complex than it used to be. We want to know how people make the choices they have to make.

Finding out the human side of the economic situation is important and something which is often overlooked by official bodies. In any case separate Scottish statistics are rather scanty and it may be important to show in what ways Scotland is different from the rest of Britain.

We also want to know how people's standard of living is connected with the amount of work they do.

If anyone is reluctant try the following arguments:-

- 1) The busy people, i.e. those who do a lot of overtime, or wives who have full time jobs, may be all alike and could be particularly interesting. It would bias the results if they all say no. Choose your own time to be interviewed - if you want to talk while you do the ironing or anything, that's all right by me.
- 2) If the objection is that the questions may be "too personal" emphasise  
a) Confidentiality, b) informant's right to refuse a particular question, c) that the questions don't ask for many actual figures. People don't mind doing the Family Expenditure survey which the government uses to work out the cost of living index, and there are 3,000 of them each year. Finding out the human side of the economic situation can only be done by talking to people.
- 3) If you have reason to suspect from informant's comments, in the case of a husband, that he does not want other members of the family to know his wages, point out that he can write them down on paper and seal the paper up in an envelope - "I know people don't like talking about their wages but ....."

### Abbreviations:-

H ; husband                      W ; wife                      E ; either                      B ; both

These four letters are found in the left hand margin to show of whom each question should be asked. By skimming down this margin you can see what to ask if one spouse is out of the room.

R ; refuse to answer                      NR ; no reply obtained (because of communication problems or forgetting to ask the question)

Y ; yes      N ; no      DK ; don't know, nothing to say on that point.

### Who to interview

Interview both spouses if possible, together if possible. If one is unwilling or quite unavailable, interview the other alone. In this case opinion questions relating to the absent spouse may have to be left out.

To start, turn to back page.

APPOINTMENT  
FOR:-

SERIAL  
No:-

## CORRELATION MATRIX

Variables as numbered vertically	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Husband's Take Home Pay																
2. Husband's Gross Wage	0.83 (90)															
3. Net Family Income	0.63 (90)	0.79 (90)														
4. Wife's Gross Income	-0.21 (43)	-0.18 (43)	0.16 (43)													
5. Husband's Basic Wage	0.11 (82)	0.20 (82)	0.08 (82)	-0.11 (43)												
6. Weekly Hire Purchase Payments	-0.01 (50)	-0.05 (50)	0.06 (50)	0.41 (73)	-0.26 (50)											
7. Weekly Housing Expenses	0.13 (90)	0.15 (90)	0.07 (90)	-0.18 (43)	0.06 (82)	-0.22 (50)										
8. Husband's Marginal Rate of Income Tax	0.47 (86)	0.38 (86)	0.33 (86)	0.23 (40)	0.08 (82)	0.30 (48)	-0.18 (86)									
9. Husband's Annual Income Tax Payments	0.34 (69)	0.36 (69)	0.24 (69)	0.03 (33)	-0.04 (69)	0.29 (36)	0.02 (69)	0.19 (67)								
10. No. of Children	-0.03 (90)	-0.07 (90)	0.12 (90)	0.13 (43)	-0.18 (82)	0.33 (50)	-0.12 (90)	-0.09 (86)	0.53 (69)							
11. Age of Eldest Child	-0.03 (90)	-0.02 (90)	0.13 (90)	0.19 (43)	-0.04 (82)	0.32 (50)	-0.04 (90)	-0.03 (86)	0.62 (69)	0.75 (90)						
12. Age of Youngest Child	0.01 (90)	0.03 (90)	0.10 (90)	0.26 (43)	-0.03 (82)	0.35 (50)	-0.05 (90)	0.04 (86)	0.58 (69)	0.55 (90)	0.93 (90)					



13. No. of Hours Over-time Worked by Husband	0.10 (79)	0.12 (79)	0.10 (79)	-0.11 (39)	0.07 (82)	-0.21 (44)	0.16 (79)	0.08 (76)	0.11 (64)	-0.10 (79)	-0.21 (79)	-0.19 (79)				
14. Percentage of Husband's Gross Pay Obtained from Over-time and Bonus Earnings	0.32 (79)	0.08 (79)	0.23 (79)	0.02 (38)	0.42 (82)	0.12 (39)	0.01 (79)	0.21 (73)	0.24 (65)	0.01 (79)	-0.02 (79)	-0.02 (79)	0.13 (79)			
15. Face Value House-keeping Allowance	0.12 (84)	0.03 (84)	0.12 (84)	0.18 (41)	0.13 (82)	0.30 (46)	-0.11 (84)	0.01 (81)	0.61 (65)	0.89 (84)	0.74 (84)	0.59 (84)	-0.10 (76)	0.05 (76)		
16. True Housekeeping Allowance	0.50 (74)	0.27 (74)	0.29 (74)	-0.22 (32)	0.14 (60)	-0.01 (44)	0.10 (74)	0.19 (70)	0.12 (60)	0.16 (74)	-0.06 (74)	-0.15 (74)	0.23 (64)	0.25 (64)	-0.12 (74)	
17. THKA as Percentage of Husband's Take Home Pay	0.30 (74)	0.06 (74)	0.14 (74)	-0.11 (32)	0.06 (60)	-0.13 (44)	-0.05 (74)	0.14 (70)	0.11 (60)	0.07 (74)	-0.03 (74)	-0.08 (74)	0.17 (64)	0.09 (64)	-0.05 (74)	0.72 (74)
Face Value House-keeping Allowance (Car Owners Only)	0.11 (33)	0.09 (33)	0.02 (33)	0.02 (19)	0.09 (30)	-0.09 (17)	-0.22 (33)	0.01 (31)	-0.21 (25)	0.17 (33)	-0.07 (33)	-0.11 (33)	0.15 (30)	0.08 (30)	with 16 -0.02 (33)	with 17 -0.03 (33)
THKA (Car Owners Only)	0.44 (27)	0.55 (27)	0.53 (27)	-0.12 (17)	-0.06 (24)	-0.12 (15)	0.37 (27)	0.25 (25)	0.13 (24)	0.04 (27)	-0.37 (27)	-0.33 (27)	0.22 (24)	0.09 (24)		with 17 0.88 (27)
THKA as Percentage of Husband's Take Home Pay (Car Owners Only)	0.37 (27)	0.35 (27)	0.35 (27)	0.01 (17)	-0.11 (24)	-0.24 (15)	0.17 (27)	0.23 (25)	-0.01 (24)	0.01 (27)	-0.46 (27)	-0.35 (27)	-0.27 (24)	0.12 (24)		
Face Value House-keeping Allowance (Non-car-Owners Only)	0.01 (51)	-0.01 (51)	0.17 (51)	0.27 (22)	-0.18 (51)	0.35 (29)	-0.07 (51)	-0.09 (50)	0.73 (40)	0.91 (51)	0.91 (51)	0.87 (51)	-0.19 (43)	0.03 (41)	with 16 0.13 (47)	with 17 0.04 (47)
THKA (Non-car-Owners Only)	0.52 (47)	0.16 (47)	0.11 (47)	-0.34 (15)	0.35 (36)	-0.02 (29)	-0.08 (47)	-0.07 (43)	0.11 (35)	0.17 (47)	0.07 (47)	-0.01 (47)	0.26 (40)	0.30 (40)		with 17 0.59 (47)
THKA as Percentage of Husband's Take Home Pay (Non-car-owners Only)	0.17 (47)	0.16 (47)	0.16 (47)	-0.22 (23)	0.20 (47)	-0.13 (32)	-0.18 (47)	-0.16 (46)	0.13 (35)	0.05 (47)	0.14 (47)	0.11 (47)	0.11 (40)	0.02 (40)		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		

N's for each calculation are given in brackets. Controls are excluded.